THE ARCHITECT & BUILDING NEWS

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- NEWS OF THE BUILDING INDUSTRY

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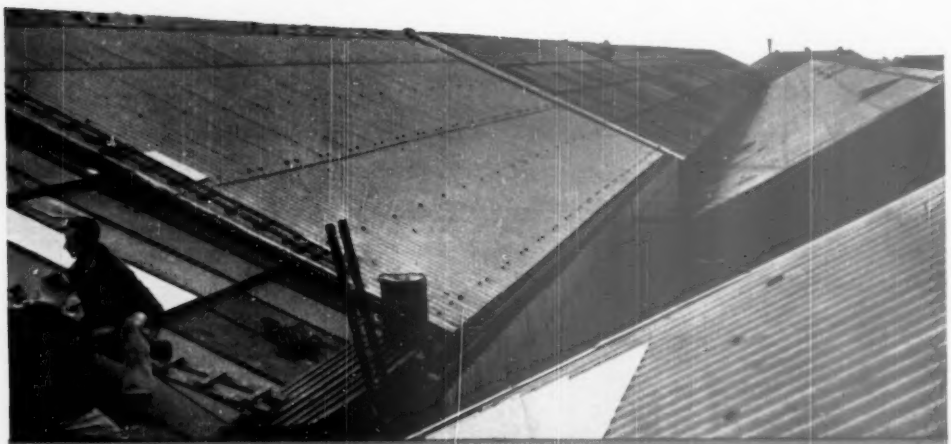

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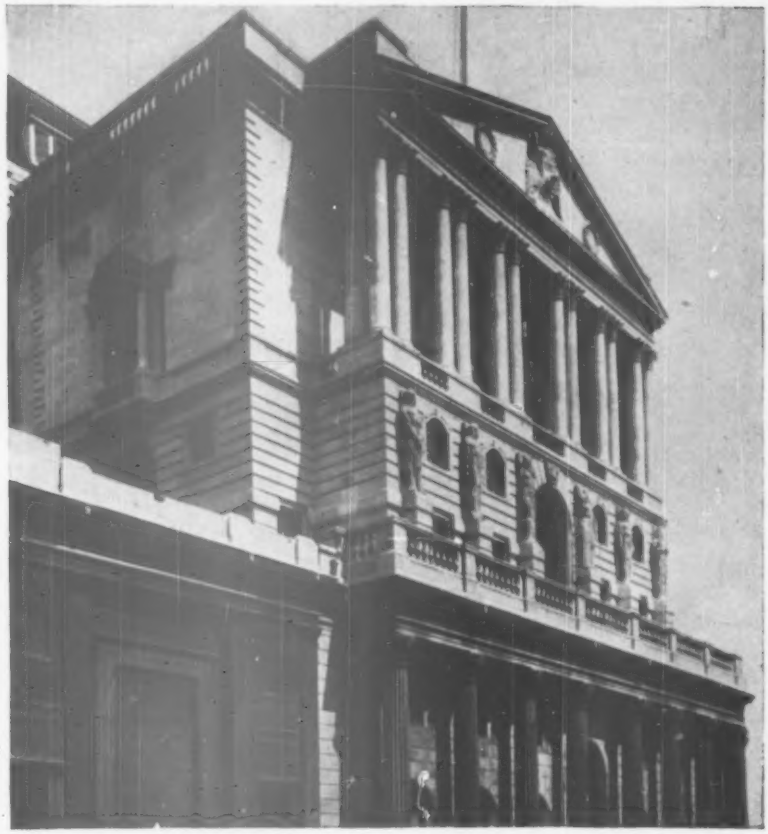

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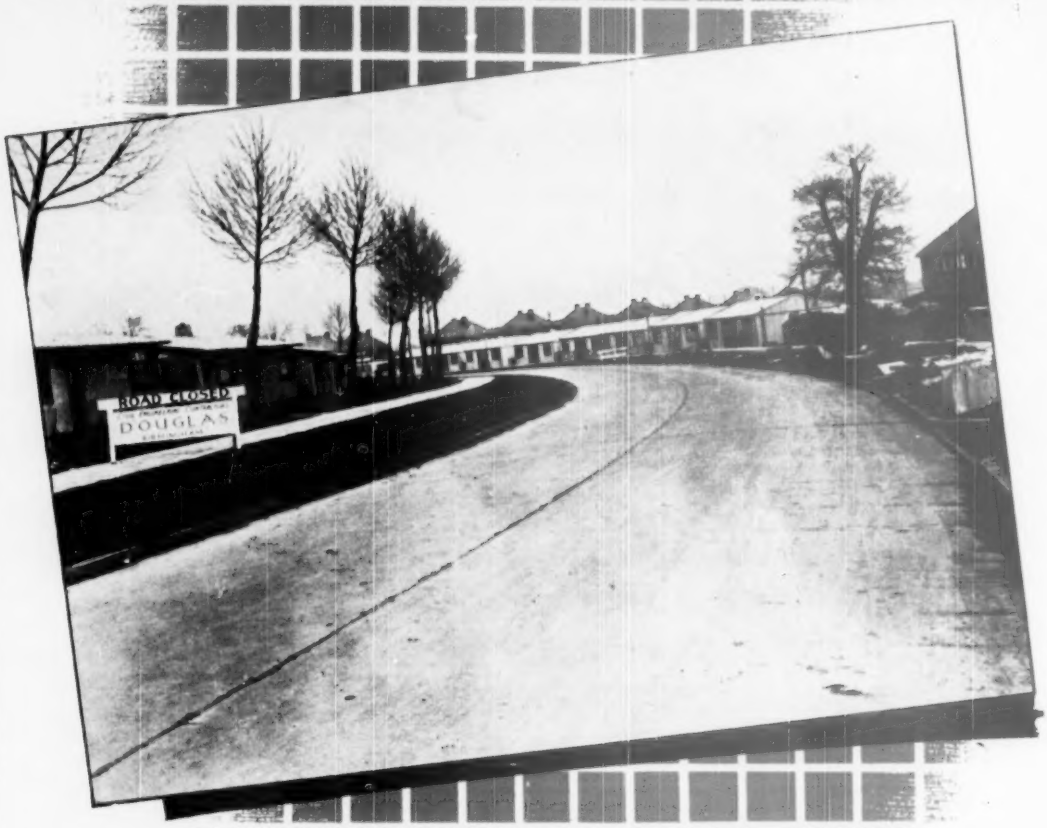

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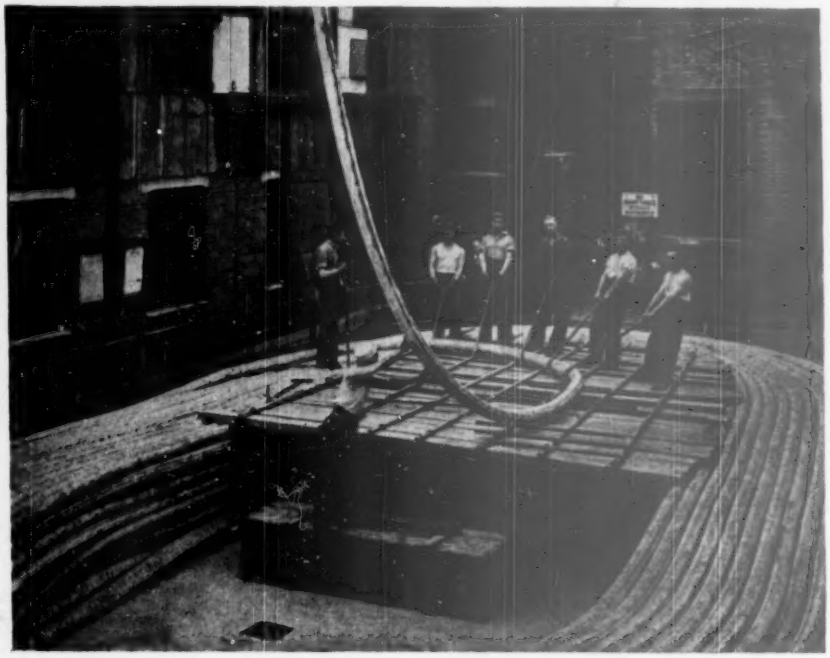

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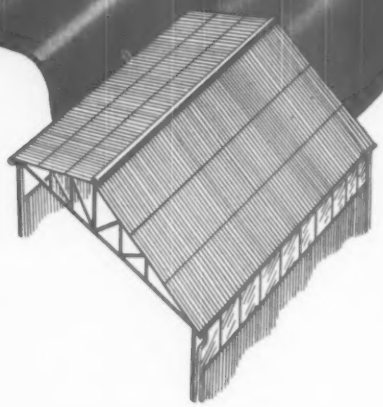

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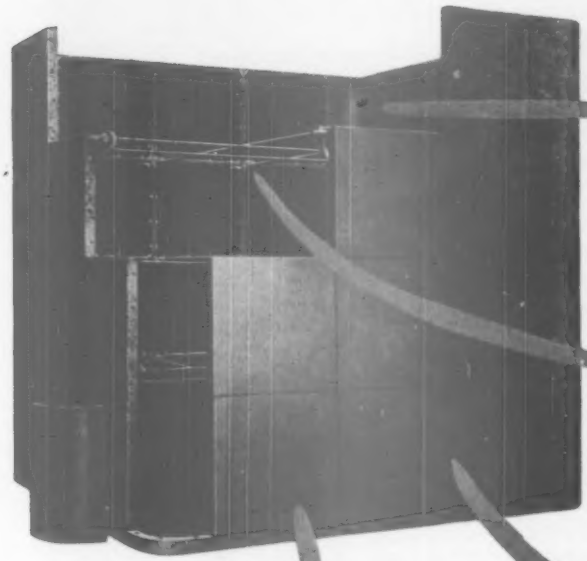

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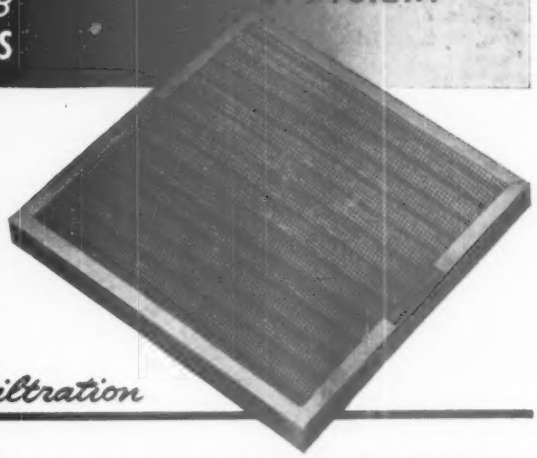

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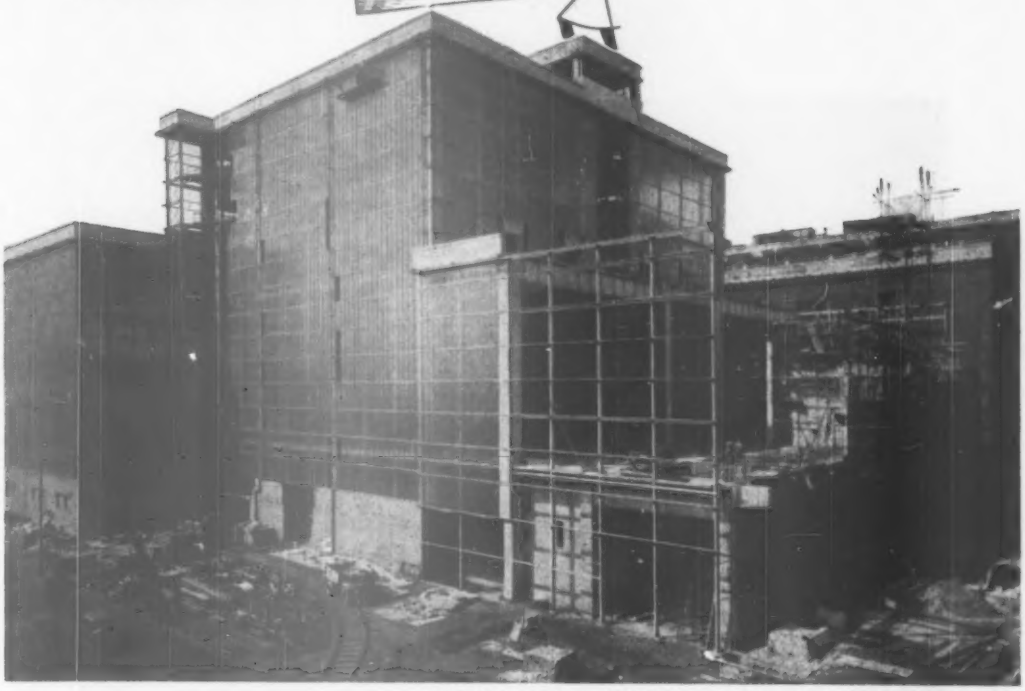

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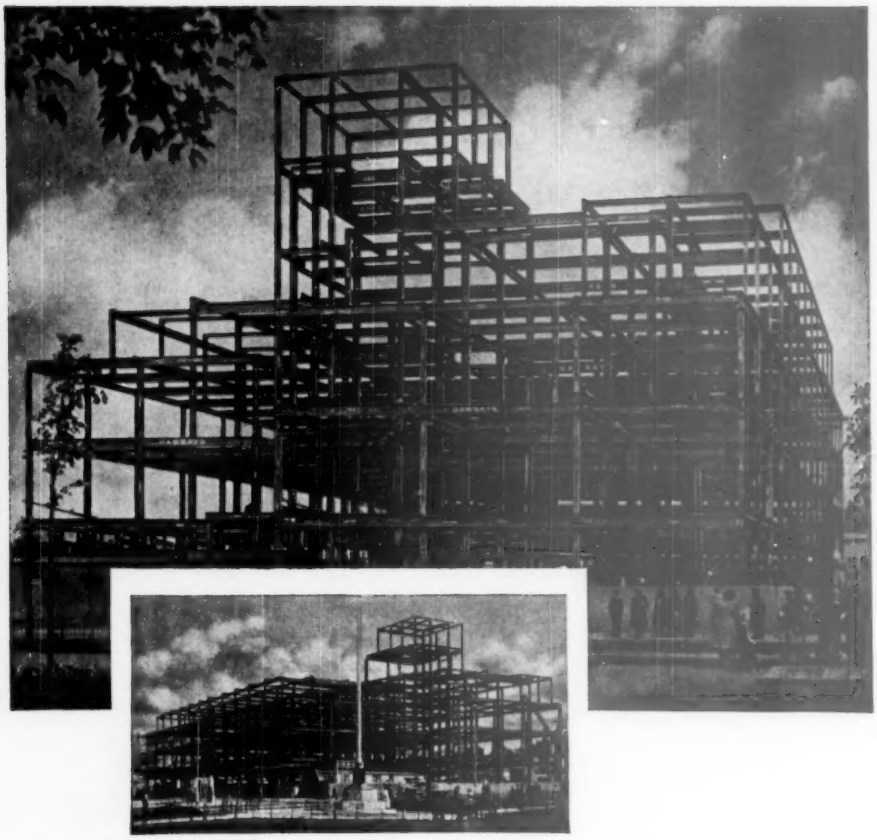

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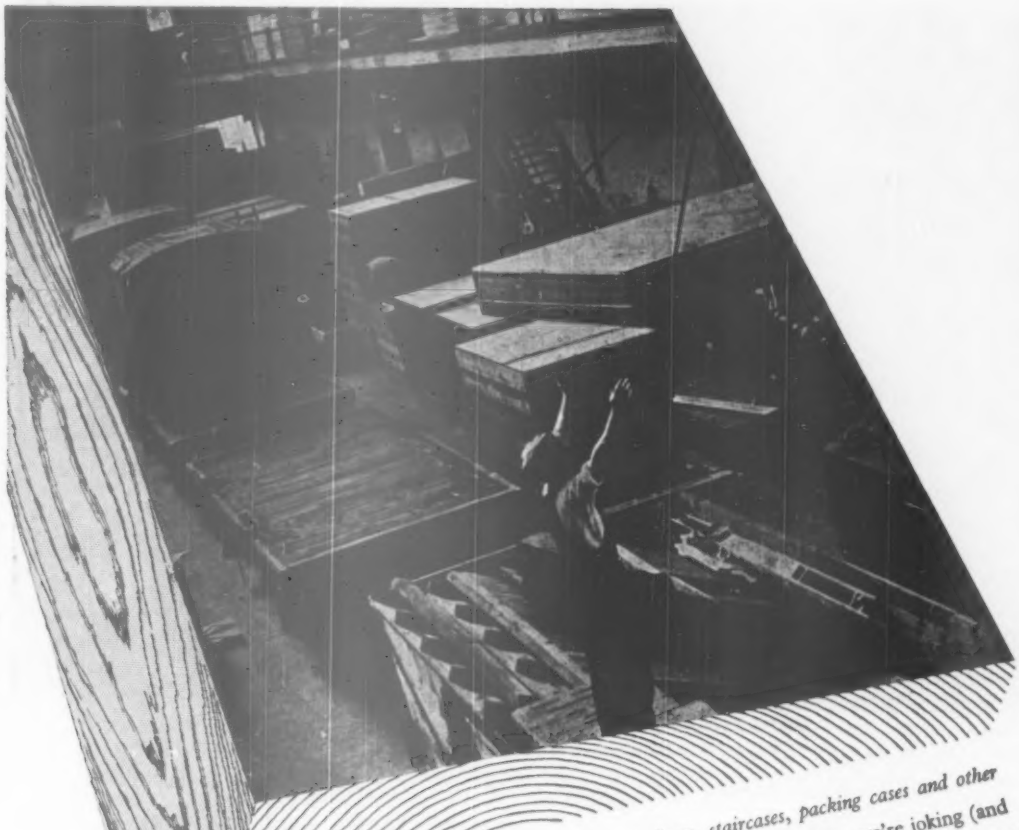

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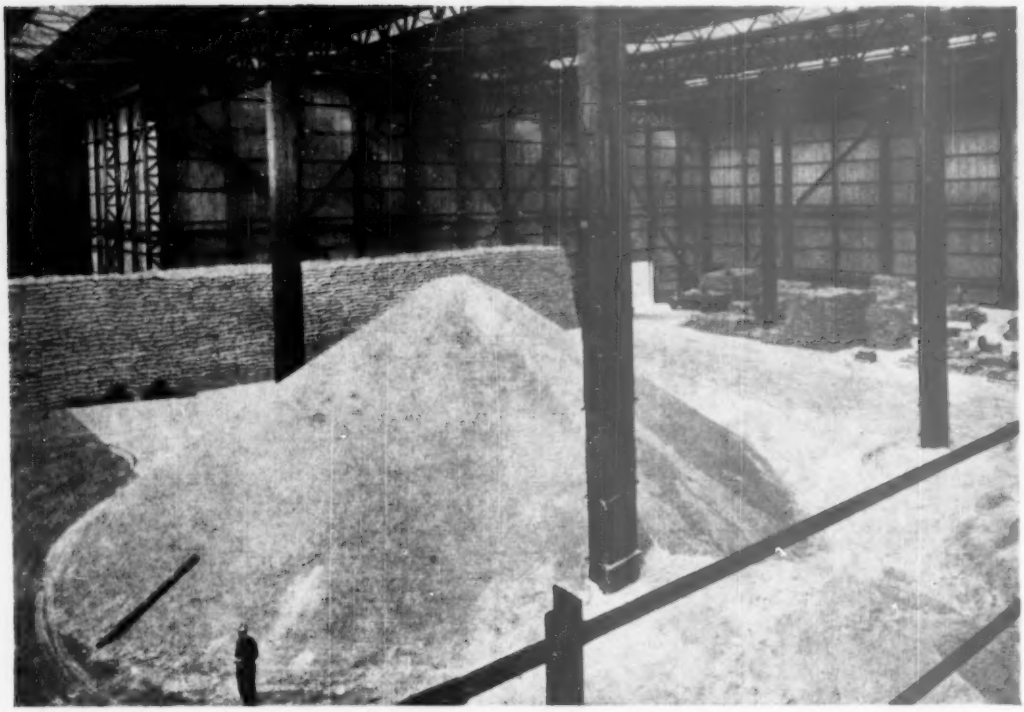

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Vol. 198. No. 4280.

THE ARCHITECT & BUILDING NEWS

December 29, 1950.

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HAPPY NEW YEAR?

THIS is the last issue of the *A. & B.N.* to be published in this year of grace 1950. Before another leading article is penned the mid-year of the century will have passed and a year which is a significant centenary will have started on its way—significant because of so much that happened in this country during its climax of nineteenth century growth.

What are the characteristics of this present year and what the prospects when it has gone?

This period we have so recently traversed has been one of uneasiness in the midst of endeavour and experiment. Expansion has been continued, especially in a high-export programme and has enabled the country to stabilize a position in world-markets and see the end of Marshall aid. Its internal expansion has, however, remained static although full employment is, at the moment, still maintained. We have come through war-scares and the fears of the spread of far-away border warfare to fields nearer home; we have watched uneasily this fear rise to near-hysteria in other places.

Insidiously and consistently inflation has steepened its spiral. The effects of world shortages and the inequalities of world distribution have contributed, but a new influence is to be seen in the urge towards rearmament and the trend towards stock-piling in many obvious but also many obscure places and trades. Substances as different even as salicylic acid (causing, by being stock-piled for other purposes, temporary unemployment in certain metallurgical processes) or heavier types of steel plate, are in short supply, in spite of greater production.

Prices continue to rise in response to shortage and stock-piling. Wages, through necessity or the agitation of frustration, tend to follow with great or less rapidity and in the midst of many major industries which feel the effects, the building industry is, necessarily, feeling and resisting its share. Housing, educational and national health constructions have continued to form the larger part of building work outside the sustained demands of industrial expansion and rehabilitation; there too continues full employment, but not the employment of the highly skilled upon works of high and lasting quality; architecture is slowing down and utilitarianism—often, withall, well-planned—is taking its place at an increasing pace. The phenomenon is not unrelated to the pace of the advance of inflation.

What of 1951?

This past year has seen a rising crescendo of preparation for the Festival of the Centenary; amidst some criticism and not a few misgivings. The metropolitan exhibitions and their provincial counterparts are working towards completion and, if all goes well, we shall, as the spring expands into full summer be enjoying the Festival's surprises, pleasures and fun. We shall look forward to meeting and entertaining, even though in overcrowded and uncomfortable conditions, our country cousins and our foreign guests. Whether financially successful or not, here is a gesture to the world that may well be worth more than money can pay for.

When the preparations are complete some manpower and even some materials may be released and transferred to other activities. But the other factors of shortage, of capital controls and of the stock-pile demands will inevitably allow less building work of permanent quality — the expanding industrial and armament drives will preclude many projects. Even those public and private architectural offices now so concerned with housing, schools and hospitals will find programmes being cut, if not in area, then in cost. Even vital works of transport reconstruction and

extension are likely to slow down and be subjected to "reconsideration".

But 1951 is also the year for the submission of development plans by all the statutory planning authorities under the 1947 Planning Act. Interim development should, with the approval of the plans, begin to give way to more permanent and long-term progress. Paper-work should leave the preliminary stages and grow gradually into three dimensions. But will our resources and our present world-relationships enable the change-over? And how long shall be the wait for substantial results?

A very real question to be asked, in more basic summary of the situation and to accompany our forward glances into 1951, is: whether the attributes which have been acquired so laboriously over so many centuries by the human race, the extension of knowledge and culture and the refinements and qualities of living, can stand the strain of these uneven expansions, these uncertainties of this mid-century? Is it not possible that the strain of recent wars and their present extensions may not develop into a long and almost imperceptible slide towards some lower sort of culture from which *homo sapiens* (or *stultus*) may have to rise again?

No man knows; but it is those who have something of this world's "vision" and knowledge—those that create quality, the quiet minds of this epoch, artists, craftsmen and scientists that fear most from the future. For they are the ones who, having their particular kind of imagination, may see, or think they see, a little further into the murk and tendencies of the year ahead. It is these people, rather than the politicians and economists of the hurly-burly, who may yet lead us to better ways through the qualities of life—through architecture, music and the written word. The religious cell and the scholar's study opened the way for gleams of light to be let into a previous dark age and guided humanity to a previous renaissance. History might well repeat itself in some much accelerated form.

Lest it be felt that in all this we may be just indulging in mere self-pitying pessimism, we must recall again the perennial beacon-light that is a New Year, and for all the days of 1951 wish our readers the maximum of success and happiness and peace.

EVENTS AND COMMENTS

NEW YEAR RESOLUTIONS

THESE are, we are told, always made to be broken but the making of them surely shows willing. I have given mine close attention and here are some of those fit for publication.

To be kind to British Railways, Neo-Georgian architecture, Gas buildings and the makers of tile fireplaces. To write less about the A.A. and to try to remember that there are after all other schools and societies. To give up eating bread and potatoes and to cut down on cigars. To refuse oysters when offered them by impecunious editors and to refrain from accepting wine where beer is clearly intended. To be kind to lady clients and tolerant to all persons of low intelligence, and morons. To give up singing the Red Flag in my bath.

That I think should be sufficient for the moment although I had thought of writing this page in verse.

AN ARCHITECTURAL TOUR

YOU may remember a tempting circular received from a travel agency earlier in the year announcing a Scandinavian tour for architects with an architect in charge. The tour was a considerable success although it was organised at short notice and the architect was Mr. Richard Walker, old A.A. boy, and one-time assistant-in-charge of Mr. Goodhart-Rendel's Cannes office. Mr. Walker, who has thirteen years' experience of architectural practice on the continent, is now organising his own tour to France and Switzerland in late March. This tour will be for architects and their wives and will include in its itinerary Zurich, Basle, Berne, Geneva and Paris.

This seems to me to be an excellent idea. Parties from various architectural organisations have from time to time visited foreign countries but the idea of an architectural tour organised independently is something new. Mr. Walker tells me that in Scandinavia this year's party was very well looked after by local architects and saw much that was normally not shown to tourists. Since France and Switzerland are Mr. Walker's speciality I imagine that his spring tour will be equally well looked after.

Further details may be obtained from Mr. Richard Walker, c/o A.& B.N.

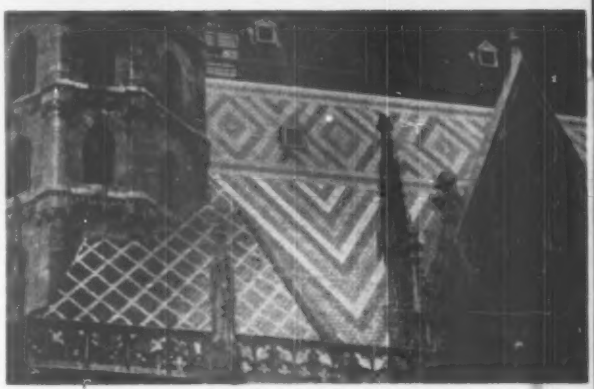
FESTIVAL COMPETITIONS

IF you live or were born in Ulster and are on the A.R.C.U.K. register you might like to make a New Year resolution to enter for one or both of the competitions being organised by the Royal Ulster Society of Architects in association with the Council for the Encouragement of Music and the Arts, Northern Ireland, as part of the Festival of Britain celebrations.

The first building is a seaside hotel and the second a recreation centre. First prizes of £200 and £100 respectively are offered with second and third prizes. Mr. Desmond FitzGerald has been appointed assessor. It is unlikely that either of the buildings will in fact be built but each would meet an actual need. The last day for questions is already past but completed designs are not required until March 31. Full details may be had from the Secretary, R.U.S.A., 7 College Square North, Belfast.

UNO BUILDING

THE *Architectural Forum* which seems to be in the process of changing its name to the *Magazine of Building*, has, for November, a splash on the U.N.O. building. In addition to descriptive articles there are several pages headed "a great Debate" in which a number of persons, mostly American architects, answer questions put to them by the magazine. Some of the answers are good, and some just silly. The U.K. is represented for some odd reason by Mr. Ian



Photographs by Vivian Levett.

The reconstruction of the roof of the nave of Saint Stephen's Cathedral, Vienna, which was burnt down is now nearing completion. The glazed tiling in white, sepia, slate-blue and olive green, is being fixed to steel battens and framing. The north side is almost all replaced and a good start has been made on the south side. The photograph above shows the small wooden hut at the side door of the west door. The notice reads "Everybody, give one roof tile for our 'Steffel' price 5 schillings (about 2s. 6d.) including transport and cost of laying."

MacCallum, one of the editors of the *Architectural Review*, and Sir Owen Williams.

As is usual in a forum of architects no two think the same except in one instance where the question was "Do you think the project proves the success of this sort of architectural collaboration? Do you want to suggest alternatives?" Two said that Le Corbusier should have had the job and two F.L.W. One of the more pregnant remarks on this question was "Ideas cannot be manufactured and the mixing bowl will never take the place of the womb." Sir Owen Williams only seems to have attempted one of the questions, the first, "Do you like the monumental character of the U.N. group?" His reply was "I cannot regard the buildings as monumental or utilitarian, neither architecture nor engineering, in brief—without rhyme or reason, but that is not to say unsuited to their purpose . . ." Oh, you funny man!

Ian MacCallum's remarks were, I thought, rather patronising and self-consciously clever. For uncompromising dislike those of Joseph Boaz maintained a high level. He summed up his opinion by saying "the whole thing is nothing better than embarrassing, didn't anybody even care?" And he was one of those who voted for Corb. too. On the whole most of those asked thought the building pretty good. Neither Le Corbusier nor F. L. W. are quoted. I imagine that they declined to comment for they must surely have been asked. I hear from my Paris agent that Corb. feels that he was made use of by the designers and/or promoters and is none too pleased.

No one asked for my comments but here they are. I like the shape. The grilles over the "machinery" floors seem to me to spoil the main elevations. The marble end-walls, in pictures at any rate, look like rubber flooring. The screen hiding the lift motor rooms and goodness knows what besides is every bit as dishonest as that at the Odeon, Marble Arch. I think it is the best skyscraper design I have ever seen but I am glad I do not have to work in it.

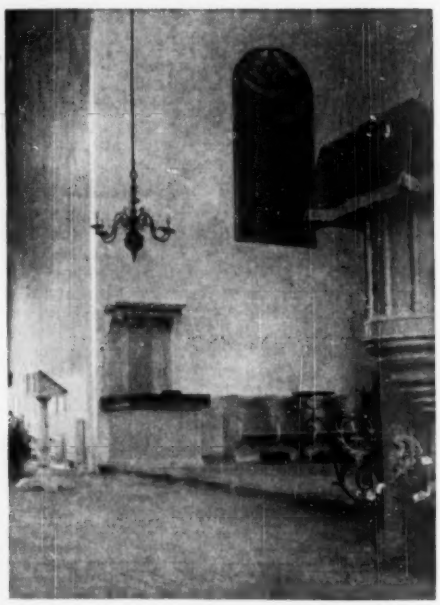
THE GREAT EXHIBITION

IF you forgot to buy a present for a nice and inexpensive person you have a chance to make amends by giving her the Stationery Office book on the Great Exhibition by C. H. Gibbs-Smith. It contains a short history of that remarkable enterprise with much contemporary comment including extracts from Queen Victoria's Journal. The bulk of the book consists of pictures of both building and exhibits with reproductions of some early photographs or more correctly Calotypes. These unfortunately had to be taken outside opening hours as there was no plate made sufficiently fast to photograph moving people. Considering how few photographs have survived, the Exhibition is remarkably well documented. Among the interesting exhibits you will find an early type of stirrup pump for watering the garden and suitable for use by ladies, and a large number of unclothed figures variously chained up. One of these, "the Greek Slave," by an American, caused quite a stir. The book costs six shillings.

CHRISTMAS DETAIL SHEET

MESSRS Cole and Coak are, I must confess, unknown to me but judging by the significance of their design I should say that they belonged to that

The new Livingstone Kirk, West Lothian. Architect, Ian Lindsay, F.R.I.A.S., F.R.I.B.A. (Orphoot and Lindsay)



Canongate Kirk, the kirk of Holyroodhouse, Edinburgh, after restoration by Ian Lindsay. Other pictures on the facing page

hierarchy of pre-planners and forward-looking sociological architects whose acid approach to design build-up has become so potent a force in contemporary global architecture. The space enclosure demonstrated in their fireplace has a timbre which would be difficult to improve upon. However I take it that Messrs. Cole and Coak must realise that they took a grave risk in designing a fireplace before they had at least done research for the fundamental reorganisation of the universe from first principles. Though maybe they did that in their second year.

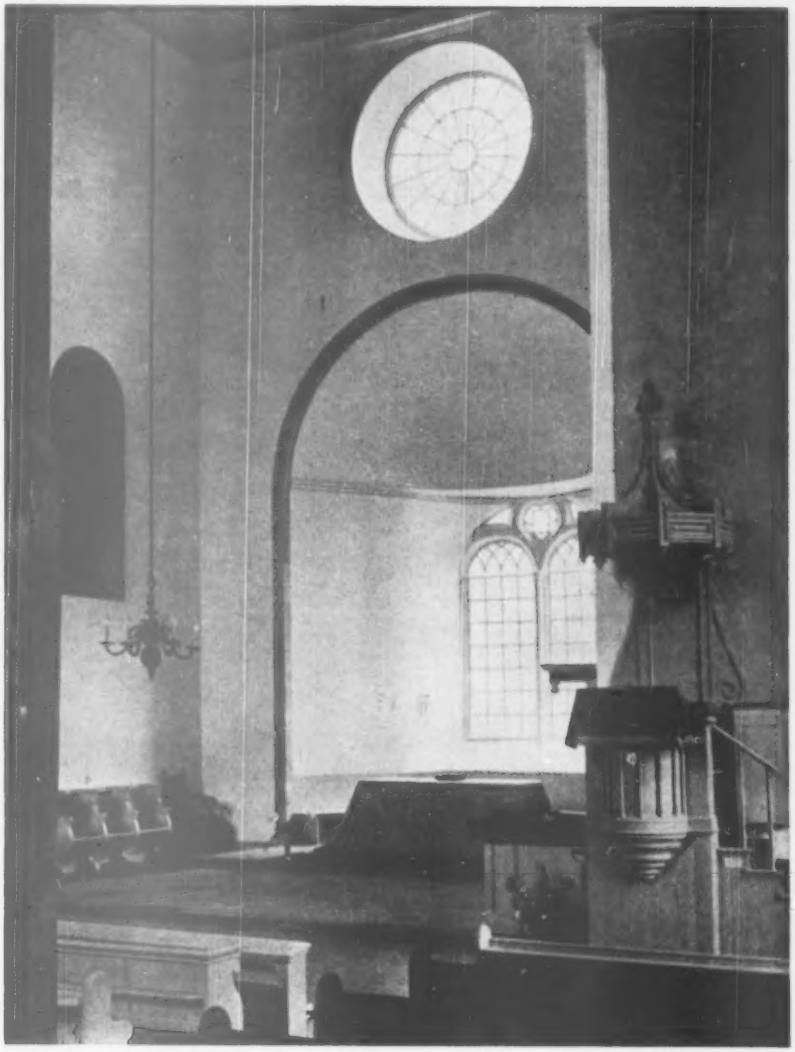
THE THREE C'S

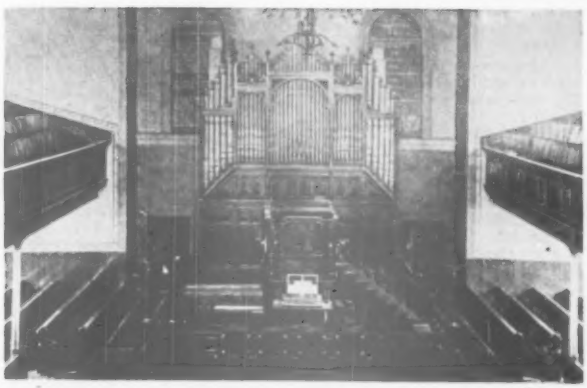
"CARE, Courtesy and Cleanliness" is to be the watchword of British Railways after its third year of life. It is unfortunate that Railway Design (bar engineering) has only got as far as the three B's of the popular song. There goes another resolution.

ABNER v. EDITOR

I DO not like taking my private quarrels into this column but really ! The Editor, God bless him for a Darlin Man, asked me to do two weeks' work in one to tide him over Christmas. I did what I could and blow me down if he did not put the whole lot in at once thus forcing me to do this on Christmas Eve. As for his remarks about my typing and the the spirit of Christmas, well the spirti has begun to creep inot Th: typewriTer adn you can s?"

ABNER





CANONGATE KIRK

The original church built at the wish of James VII was completed in 1690. The interior was completely rearranged in 1817 and again in 1882 as shown in the smaller picture. The plan of the Kirk is cruciform consisting of a nave of three bays, shallow transepts, chancel and semi-circular apse. A heavy gallery runs round three walls while on the fourth a partition wall had been built which screened the apse with its curious Gothic window. The larger picture shows the apse revealed after the restoration by Mr. Ian Lindsay, F.R.I.A.S., F.R.I.B.A.

NEWS OF THE WEEK

Competition Result

Mr. W. N. W. Ramsay, A.R.I.B.A., D.A. (Glasgow), A.R.I.A.S., a partner in the firm of Messrs. C. J. M'Nair, Elder & Ridley, architects, 529 Sauchiehall Street, Glasgow, has been awarded the first premium of 1,000 guineas in the open architectural competition for the extension of Edinburgh University's medical buildings on the north side of George Square, Edinburgh.

The second premium of 600 guineas was awarded to Messrs. P. N. Taylor, A.R.I.B.A., and J. Holt, F.R.I.B.A., A.M.T.P.I., chartered architects and surveyors, 2 Rokeby Avenue, Redland, Bristol; and the third premium of 300 guineas to Mr. A. J. M. Tolhurst, A.R.I.B.A., Riverside Drive, Lammas Lane, Esher, Surrey.

Mr. A. G. R. Mackenzie, A.R.S.A., F.R.I.B.A., was assessor. There were 39 designs submitted.

Festival Gardens Designers

Festival Gardens Ltd. have announced the names of the designers and architects responsible for the design of the main features in the Festival of Britain Pleasure Gardens in Battersea Park.

The Chief Designer is James Gardner, O.B.E., R.D.I., F.S.I.A., who is also on the Presentation Panel of the Festival of Britain and is one of the co-ordinating designers for the South Bank Exhibition.

In conjunction with the Presentation Committee of Festival Gardens Ltd., he has control over the design of all the buildings and other features, and he has been responsible for the general lay-out of the Gardens. In addition, his own designs are being used for a number of the features. These include: the "West End" Restaurant and Wine Garden—this de luxe restaurant has a terrace overlooking the river and facing Cheyne Walk, and the wine garden is surrounded by miniature pavilions where people may sit in small groups; the Pavilion which will be used as an alternative to the Amphitheatre; a Stage facing in two directions so that it can be used either for open-air performances or for shows in the wet weather pavilion (whichever way it is used, the front curtains of one form the backcloth for the other); the Dance Pavilion, which is a circular building with tented roof; the Music Pavilion in the form of a Crusader's tent; the 90 ft. Fountain Tower dominating the entrance to the Amusement Area; and the Tree Walk—a slung walk through the trees leading up to a high platform from which there will be an excellent view of the whole Gardens.

The Co-ordinating Architects are Harrison and Seel, A.A.R.I.B.A., A.M.T.P.I., who are responsible for working out all the practical details of the designs, and supervise all stages of the work from the designers' sketches to the actual buildings. They are also responsible for planning the water, electricity and other services for the site. They have designed the administration buildings, the Boating Pool, Beer Garden, the Garden Tea Pavilion and Garden Long Bar.

Architectural Consultant to the Chief Designer, Roger K. Pullen, F.R.I.B.A., A.A.DIP., of Dalgliesh and Pullen. With James Gardner, he is responsible for a number of buildings in the Gardens, especially the Dance Pavilion and the Pierhead Cafeteria. In addition, Dalgliesh and Pullen are the architects of the two permanent features—the Amphitheatre and the Riverside Tea Pavilion—which will be continued by the London County Council after the Festival has ended.

The other Architects are:

Arthur Braven, A.R.I.B.A., M.S.I.A., responsible—with James Gardner—for the Amusement Area Snack Bar.

Hugh Casson, M.A., F.R.I.B.A., F.S.I.A., Director of Architecture for the Festival of Britain Office, assisted by L. H. Gooday, has designed the English Tea Garden which is being built round the largest tree in the Pleasure Gardens.

Basil Duckett, D.F.C., A.R.I.B.A., has prepared the drawings of the de luxe Restaurant from James Gardner's sketches.

Bernard Engle, F.R.I.B.A., F.I.A.A., has been appointed by the Worshipful Company of Brewers to design for the Festival Gardens the Bandstand Beer Garden and the Main Vista Beer Garden.

Patrick Gwynne, L.R.I.B.A., who won second prize in the Festival Restaurant Design competition for the South Bank exhibition, has designed the Main Restaurant in the Pleasure Gardens.

Laurence Kenchington, B.SC. (Eng.), A.M.I.C.E., A.M.STRUCT.E., is the Structural Engineer for the Tree Walk and the 80 ft. Fountain Tower, both designed by James Gardner.

The Consultant Engineer is C. V. Blumfield; the Lighting Consultant, L. Kalff; and the Electrical Consultant, H. E. Baker, of A. H. Barker and Partners.

The Quantity Surveyors are C. E. Ball and Partners.

The Contractors are Dowsett Engineering Construction Ltd.; and the Garden Contractors, William Wood & Son, of Taplow.

Other artists and designers include Rowland Emett who has designed a miniature railway nearly 500 yards long; John Piper and Osbert Lancaster have designed the "Main Vista" and Hans Tisdall, the entrance to the Amusement Park.

M.o.W. Regional Office to Close

The Ministry of Works' Regional Director for the South-Eastern Region, Mr. S. J. Egerton-Banks, M.I.MECH.E., retires on December 31, 1950, and it has been decided that it is no longer necessary to maintain a separate Regional organisation with a headquarters in Tunbridge Wells and the Regional Office there will be closed on March 31 next.

A District organisation for the maintenance of Government buildings will remain but it will be controlled from Headquarters. Questions affecting the Building and Civil Engineering Industries and Building Materials industries in the South-Eastern Region will be handled from Headquarters at Lambeth Bridge House. Applications for Building Licences and Statistical returns from builders will be dealt with by the London Licensing Office at 17 Cornwall Terrace, Regents Park, London, N.W.1. (Telephone Museum 5030).

The arrangements for consultation with the industrial and professional organisations, which are at present carried out through the South-Eastern Regional Building and Civil Engineering Joint Committee, are being reviewed in consultation with the organisations concerned.

*

Closer co-operation between Government Departments proposing to develop land and the local authorities concerned is to be instituted. Details of a new procedure to be adopted are contained in a circular issued by the Ministry of Town and Country Planning.

Departments will in future communicate details of their proposals directly to the local authorities who will normally be expected to comment on the proposals within two months. If there are substantial objections from the local authority which the developing Department does not wish to meet, consultation will take place with the Ministry of Town and Country Planning.

Special arrangements are provided for secret proposals and for proposals of particular urgency.

*

The Medal of the Royal Society of British Sculptors for the Best Work of the Year by a British Sculptor, in any way exhibited to the public in London, has been awarded in gold to Mr. Wm. McMillan, R.A., for his fountain group in bronze erected under the auspices of the Constance Fund in the Spring of 1950 in the Queen Mary Garden, Regent's Park.

APPOINTMENT

The War Damage Commission have appointed Mr. Geoffrey C. Wilson, F.R.I.B.A., to be a Deputy Commissioner. He will be concerned mainly with cases in the London area.

OBITUARY

The death occurred on December 20, of Mr. Albert Horne, L.R.I.B.A., of Dewsbury.

COMING EVENT

Institute of Registered Architects

● January 5, at 6.30 p.m. At the Housing Centre. "The Structural and Decorative Use of Timber." Speaker: J. R. M. Poole.

CORRECTION

In last week's issue there was a misprint in the caption on page 665, the last line of which shou'd have read: "The results demonstrated that we have as yet no Robert Maillart in this country."

CORRESPONDENCE

Rights of Light

To the Editor of A. & B.N.

Sir,—There is a fairly general impression that the evidence necessary to prove whether an infringement of daylight is of an actionable nature can only be acquired by means of a very considerable amount of work and at appreciable expense. It is in the interests of the profession generally that it should be known that this is not by any means invariably the case. There are numbers of simple cases, in which the position of the no-sky line or limit of visible sky is so near to the grumble line, that the position of the no-sky line is in itself a sufficient indication of the nature of the infringement to anyone, who has had experience in plotting contours of illumination.

This is an important matter, as the no-sky line can usually be plotted by any competent draughtsman, with some experience of geometrical projection, in less than an hour or so, whereas the accurate plotting of the grumble line would normally occupy a very much longer time. There are cases, in which the positions of the original and ultimate no-sky lines have been agreed by specialists to be a sufficient indication of the nature of the loss of daylight. This is obviously important, when the rental value of the rooms affected is comparatively low. Naturally, no owners of property can accept with equanimity substantial accounts, for professional services rendered in determining small amounts of compensation. It must be remembered that the no-sky line is not an unimportant contour, inasmuch as it represents the position of the zero for direct light. Regarding its position, there can be no question, but regarding the position of a reliable grumble line that has been a difference of opinion. In 1922, the late Mr. Justice Eve accepted the view that it should represent 0.4 per cent. Sill Ratio, but some specialists have considered that it should represent 0.8 per cent. Submissions in Court regarding differences of opinion of this kind might prove expensive.

It has sometimes been stated that a Daylight Factor can only be calculated to an accuracy of four or five points of decimals by means of a mathematical operation, but in my forthcoming book on "Daylight," I explain a means whereby that degree of accuracy can be obtained by simple arithmetic, without even the use of a calculating diagram.

I am, etc.,

JOHN SWARBRICK.

The Quantity Surveyor and the Local and Nationalised Government Services

To the Editor of A. & B. N.

Sir,—It seems very strange that the claims of the Quantity Surveyor to advance to a recognised position and to hold principal appointments in the local government and nationalised services have never been made.

The Engineer has long held an eminent position in this field, while in the last generation the Architect has, with the goodwill of all, been elevated to an equivalent status.

The profession of the Quantity Surveyor is now taking a very definite place in the work of local government and in the nationalised services and it is high time that its members gathered together and formed a representative body. For this object to be obtained co-operation by all Quantity Surveyors in the nationalised and local government services is needed and I shall be glad if those willing to assist in the formation of such a body will communicate with me in order that a preliminary meeting can be arranged in the near future.

I am, etc.,

C. R. VINYCOMBE,

4 Sundown Road,
Sheffield, 9.

House Design : Scotland

THE Department of Health for Scotland has just published Scottish Housing Handbook No. 3 entitled "House Design."

The purpose behind the notes in the handbook is to simplify the work of local authorities and their architects by describing the standards of design which are considered essential for the normal local authority house. The notes are contained in six pages and two short appendices.

A paragraph in the opening remarks is of interest to the architect profession, particularly in Scotland.

> "Provided that the recommendations of these notes are observed, and provided that a registered architect is employed in the preparation of plans and supervision of building, local authorities are free to design their normal house types to suit their own requirements and without consulting the Department of Health."

This paragraph places the work of preparing plans and the supervision of the erection on the right shoulders.

The suggestions put forward are under 18 headings. Whilst the points raised under these headings are of general interest, the suggestions relating to house types and external design should assist architects in their struggles in educating local councils on the principles of design.

It is safe to say that given a choice between semi-detached or terrace houses the vote in a Council meeting would be for semi-detached every time. This has led to the monotonous schemes we have built immediately after the war. On this question the notes emphasize the architectural advantages of a judicious mixing of housing types in any large layout. Pointing out the importance of avoiding the monotonous effect of large groups of detached or semi-detached units, the handbook suggests that the modern well-planned terrace house is now recognised as convenient and satisfactory as the semi-detached type and, in addition, is more economical and more satisfactory architecturally.

On the question of design, the emphasis is laid upon simplicity. "The simpler the design of small houses, the more attractive their appearance is likely to be," are the actual words used: "Consequently, economising may go hand in hand with good design."

Regarding roofs, it is pleasing to note that the notes suggest that a simple gable roof is often to be preferred to a hipped roof. The reason given is that it gives much better architectural continuity in the street picture when used for a series of detached or semi-detached houses. It is to be hoped this suggestion does not pass unnoticed by Local Authorities, as many prefer gables. One small Burgh asked a County Council, who were the Planning Authority, if they would refuse the designs submitted by the Scottish Special Housing Association because they were gabled, and ask for the substitution of hips. Needless to say, the Planning Authority would not agree to take any action in the matter.

Flat roofs are discouraged except for high blocks. The suggestions on colour treatment both as regards painting and the actual materials selected for walls and roofs, is well worthy of note.

All the remarks appear on reading the notes to be elementary, but on inspecting many of our post-war housing schemes even the elementary factors are often ignored.

The handbook may be obtained from H.M. Stationery Office, price sixpence.

M. E. T.

A Students' Service

At a recent meeting, the Council of the Institute of Registered Architects considered a number of requests for assistance from architectural students. It was noted that these were mainly from students in provincial towns and that they were almost identical in character in that they sought the opinion of practising architects on various aspects of their studies.

The Council have therefore decided to set up a Students' Service for the purpose of meeting this need. To this end, a panel of architects, each a specialist in his own field, has been appointed to collaborate with consultants in materials and building technology.

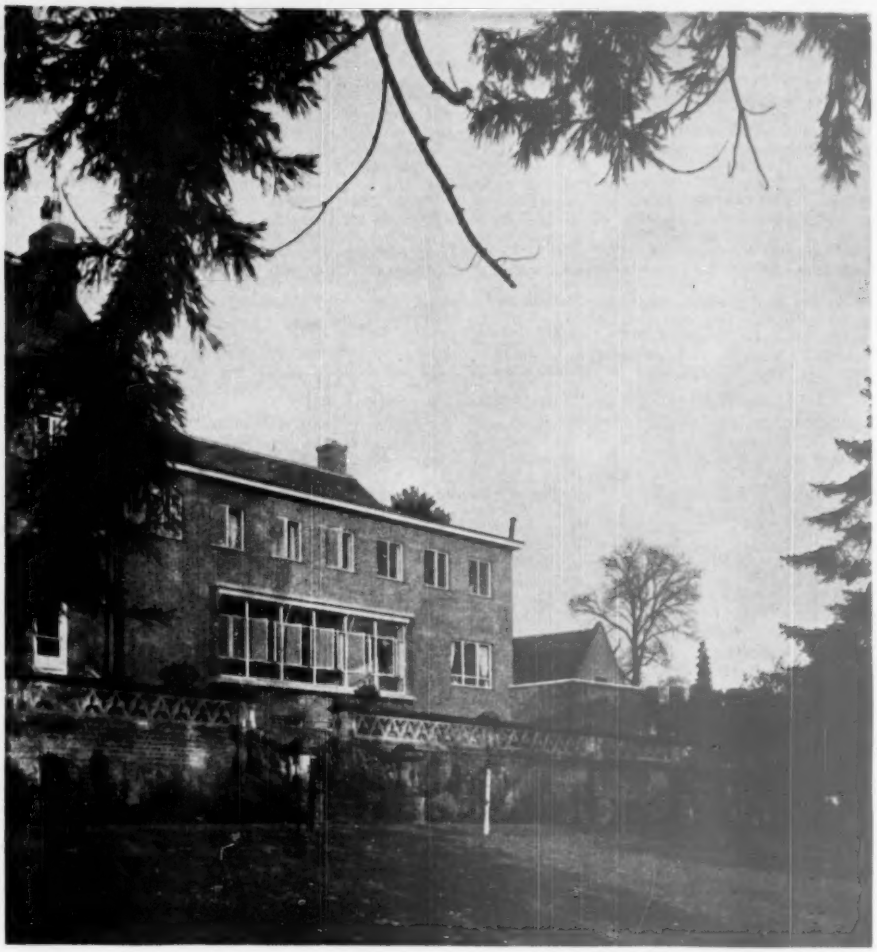
The Council wish to emphasise that the Students' Service is not

(a) A Students' Union or similar organisation to further the general interests of students;
(b) A teaching organisation;
(c) An examining body.

On the contrary, the Service will serve the specific purpose of enabling students to take the opinion of practising architects and other specialists on any matters connected with their studies where they feel this will be helpful to them. There is ample evidence that many students, especially those living in the provinces, are working under considerable difficulty and it is they whom the Service is particularly designed to assist.

A feature of the Service is that student subscribers will be eligible to participate in the Institute's library service organised in conjunction with "Books & Careers," Oxford Street, London, W.1. Under this, any books on architecture, building and planning law, building technology and allied subjects may be borrowed and students may be assured that only current editions are retained in the library.

Students interested in becoming subscribers to the service are invited to communicate with the Secretary of the Institute, 47 Victoria Street, London, S.W.1.

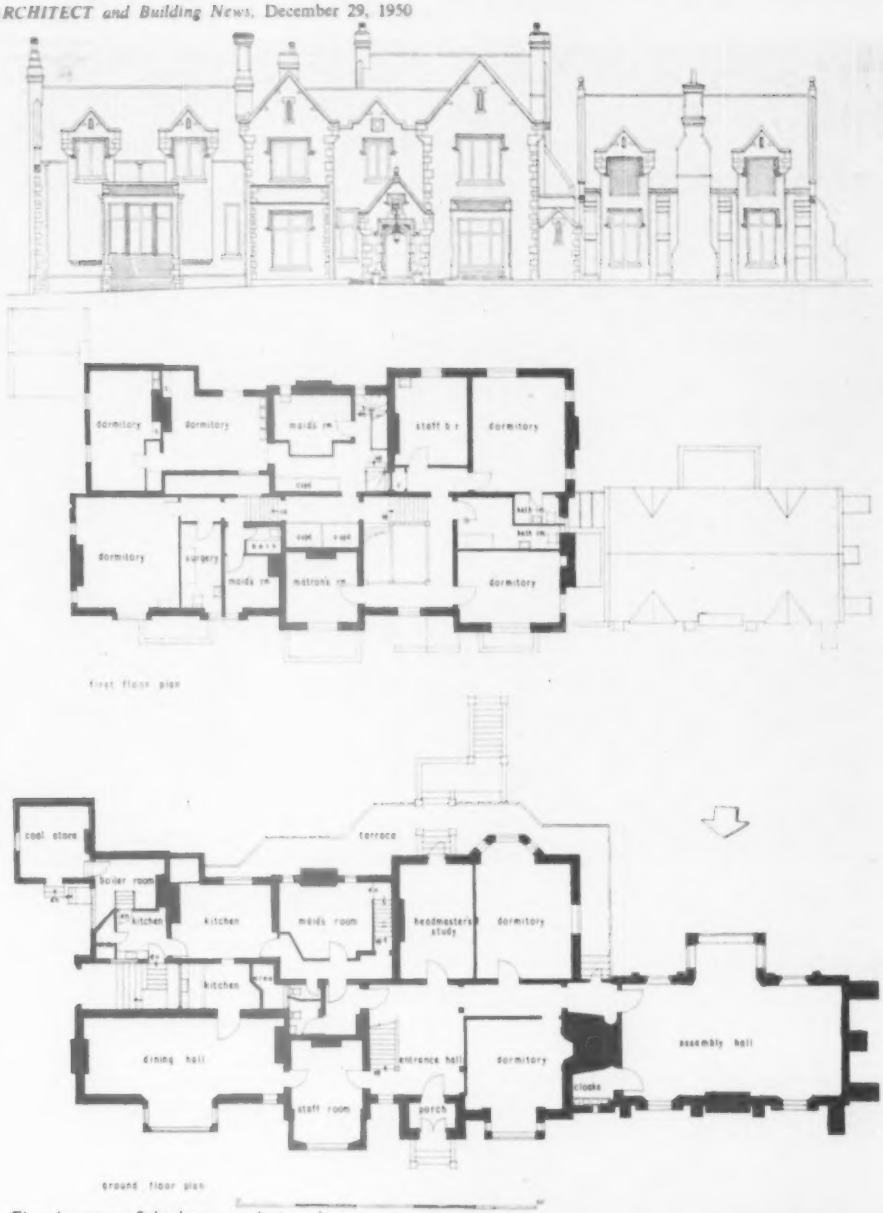


KENT COLLEGE, CANTERBURY

Vernon Holme Junior School

ARCHITECT: EDWARD D. MILLS, F.R.I.B.A., F.S.A.

VERNON Holme is the junior school connected with Kent College, housed in a Victorian mansion originally designed and built for Sidney Cooper, R.A., an eminent local painter of the 19th century, who designed the building himself. It was extended several times during his occupancy and was taken over by Kent College in 1945 for use as a junior school. During the war years it was occupied by H.M. Forces. In 1946 it was discovered that dry rot existed in the building and investigations showed that the construction throughout was highly unorthodox and that dry rot had in fact taken a very serious hold on the structure. The woodwork through the building was badly affected and at some earlier time repairs had been carried out by the simple expedient of bolting new timber to rotten timber with disastrous results. In addition the existing roof structures were unsound as much of the timber, which appeared to be local chestnut, was badly affected by both dry rot and wood worm, and the weight of false dormers, dummy chimneys and other architectural excrescences, was seriously overloading the inadequate walls which in most cases were without foundations in spite of the very steeply sloping site. The room now used as an Assembly Hall was originally Sidney Cooper's studio and had an elaborate imitation hammer beam roof. These members were badly affected by wood worm and on examination many of the members collapsed, and the roof and floor were both in a very bad state of repair. In many cases the floor joists of the upper floors no longer had any bearing on the wall plates as the ends of the joists had disintegrated. In other sections of the building the wall structure was in such a bad condition that there was serious danger of collapse, particularly in the event of heavy snow during the winter. This was particularly true of the eastern section of the building. In addition to the structural conditions, the arrangement of the rooms was most unsatisfactory as the accompanying plans indicate. The school kitchens were hopelessly inadequate, and together with larders and stores faced south and overlooked a very attractive view across the garden, whereas the equally inadequate dining room



The elevation of the house as designed by Sidney Cooper, R.A., and plans of the house adapted for use as a school.

faced north. The dormitories on the first floor were connected by a series of corridors without proper means of escape and were generally unsatisfactory for the purpose for which they were used.

In conjunction with the local authority and the Ministry of Works, it was, therefore, decided to demolish the unsafe section of the building and reconstruct it in a more satisfactory manner, at the same time rearranging the rooms so

that the kitchen and stores faced north and the maid quarters, dormitories and dining room faced south, and enjoyed the view over the garden. The reconstruction also bore in mind the fact that in future the building will be considerably enlarged and the existing structure will form the centre of a large contemporary boys' school. The rebuilding was carried out in sections with the support of the Ministry of Works, and the County Planning Officer agreed that a contemporary approach to the new work would be the most satisfactory solution. The new section of the building is constructed with brick walls to match the rest of the building; with timber floors finished hardwood strip flooring; partly with a timber flat roof and partly with a replacement of the old pitched roof. The ceilings on the new sections are formed with Tentest fibre board secretly fixed to the wooden joists and left with a vee joint. The Assembly Hall roof was completely reconstructed; new windows were fixed and the existing fireplace with unsafe chimney was removed and a window built in its place. While this work was going on the opportunity was taken for the removal of all dummy brick dormers and surplus chimney stacks, and a general tidying up of the appearance of the building. The dining room now has a very large window which overlooks the beautiful grounds which slope towards the south, and the majority of the dormitories are also on this side of the building. Where new pitched roofs were designed these were constructed in accordance with the T.D.A. roof, using small members bolted together. Heating throughout the building is by means of electric convector heaters; hot water is provided from the existing boiler resited, with a replanned

The Dormitory.

circulation, and metal windows have been used throughout the building in place of the old rotten timber casements.

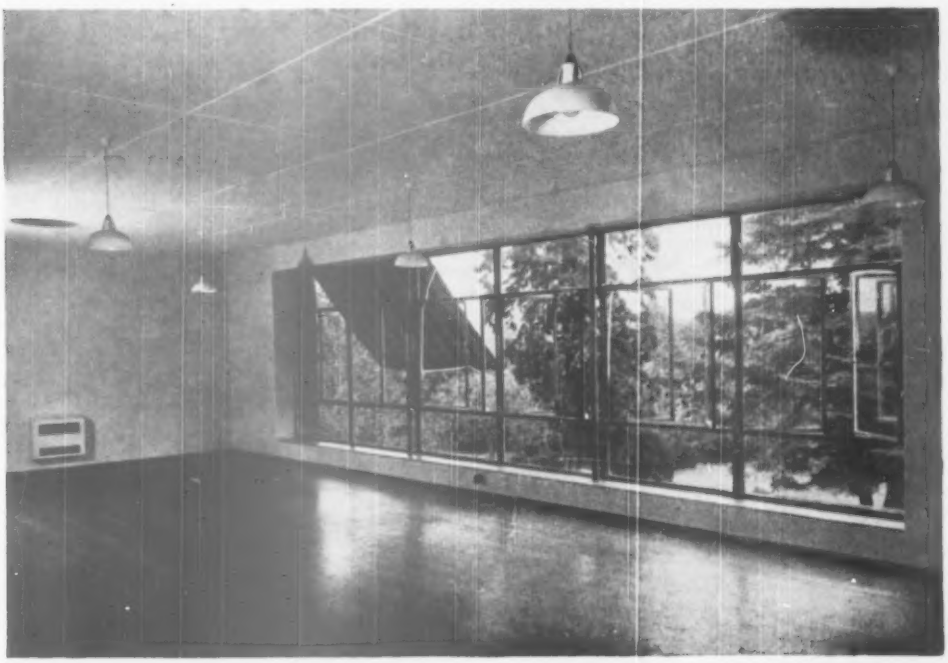
KENT COLLEGE, CANTERBURY
ARCHITECT: EDWARD D. MILLS
Vernon Holme Junior School

GENERAL CONTRACTOR: W. S. COZENS LTD
Asphalte Roofing and Flooring: Val de Travers Asphalte Paving Co. Ltd.
Blinds—Sun: A. H. Amey & Son Ltd.
Ceiling Linings: TenTesT Fibre Board Co. Ltd.
Decorations: E. G. Pitcher Ltd.
Distemper: The Walpamur Paint Co. Ltd.
Electrical Work: E. J. Ratcliff.
Electric Heaters: E. K. Cole Ltd.
Flooring: Semtex Ltd.—Assembly Hall. Horsley Smith & Co. (Hayes) Ltd.—Wood Strip.
Ironmongery: Dryad Metal Works Ltd.
Lighting Fittings: The General Electric Co. Ltd. The Merchant Adventurers of London Ltd.
Plaster Boards: Gyproc Products Ltd.
Wallpaper: Arthur Sanderson & Sons Ltd.
Wood Preservative: Cuprinol Ltd.
Windows—Metal: James Couper & Co. Ltd.

Kent College Classroom Block

GENERAL CONTRACTORS: GEORGE PARKER & SONS.
Bricks: J. J. Bassett & Co. Ltd.
Cement Rendering: Cement Marketing Co. Ltd.
Damp Proof: The Ruberoid Co. Ltd.
Doors—Flush and Glazed: Gliksten Doors Ltd.
Door Closers: Forson Design & Engineering Co. Ltd.
Electrical Work: E. J. Ratcliff.
Flooring—Wood Block: Horsley Smith & Co. (Hayes) Ltd.
Glass—Obscured: Chance Bros.
Gutters and Rainwater Pipes: Universal Asbestos Cement Co. Ltd.
Heating and Hot Water Installation: White Bays & White Ltd.

Insulation: TenTesT Fibre Board Co. Ltd.
Ironmongery: Mountford Bros. Ltd.
Lighting Fittings: The General Electric Co. Ltd., The Merchant Adventurers of London Ltd.
Partition—Shower: Venesta Ltd.
Roof Finish: Macartney Ltd.
Sanitary Fittings: Stitsons Sanitary Fittings Ltd.
Windows—Metal: James Couper & Co. Ltd.



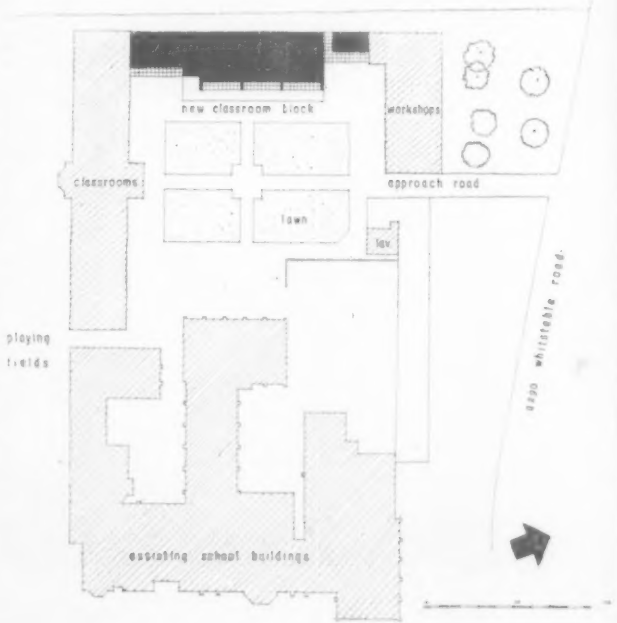
KENT COLLEGE CLASSROOM BLOCK

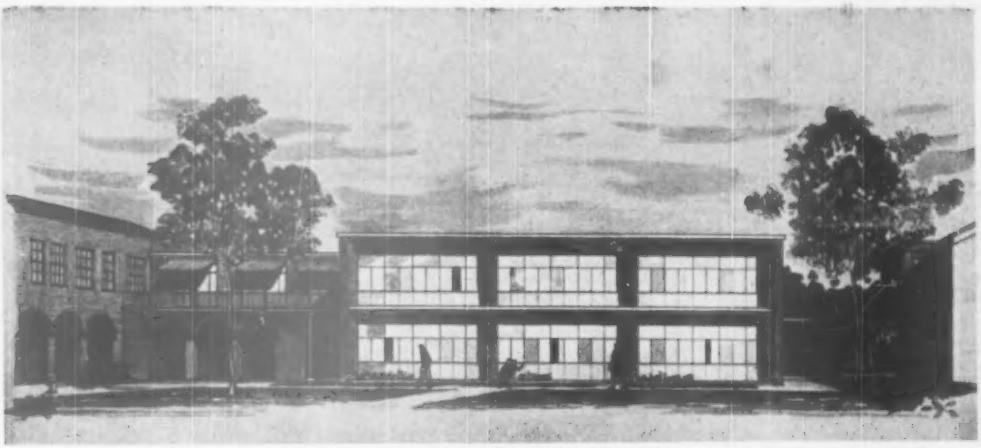
ARCHITECT: EDWARD D. MILLS

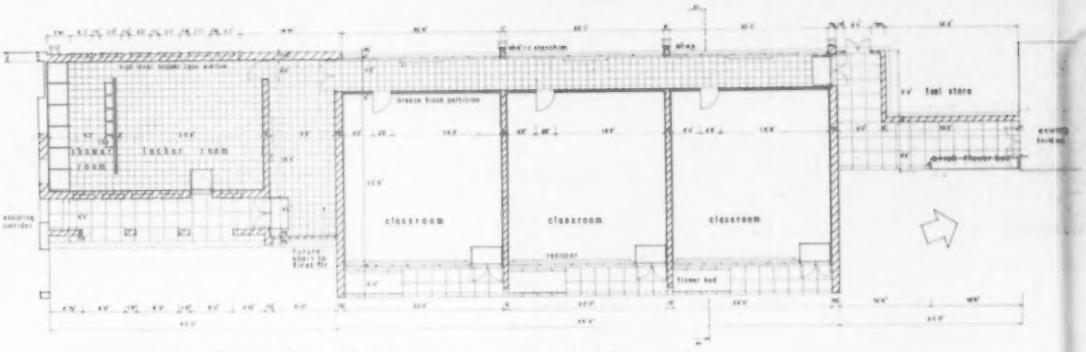
KENT College is a boys' boarding school which is under the control of the Methodist Education Committee. It was founded in 1885 and the original buildings are brick Victorian boarding school style, but considerable extensions in the Georgian manner were carried out between the wars. The scheme illustrated is the first stage of a two-storey classroom block sited in the quadrangle, linking the workshop building and the lower school. The ground floor of the building has been erected and provision made for a first floor which will be constructed when licensing conditions permit.

The ground floor consists of three classrooms facing south-east, with a covered way linking the workshop building, and changing rooms and showers at the lower school end, with a covered link to the existing arcade of the lower school. The first floor will ultimately contain three further classrooms and a boys' dayroom over the locker room. It was decided to approach the problem in a contemporary fashion as the standard of daylighting required by the Ministry of Education could not be obtained in any other way, and the large windows overlooking the quadrangle form the main feature of the building.

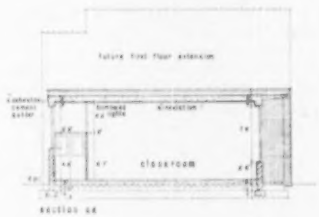
The building is constructed with solid load-bearing brick walls with reinforced concrete slab to take a future first floor. The division walls between the classrooms are 9in. load-bearing walls picked up on reinforced concrete columns along the corridor. The building is faced with multi-red facing bricks to match the existing buildings in the vicinity, and the flat roof is finished with a temporary built-up roofing.

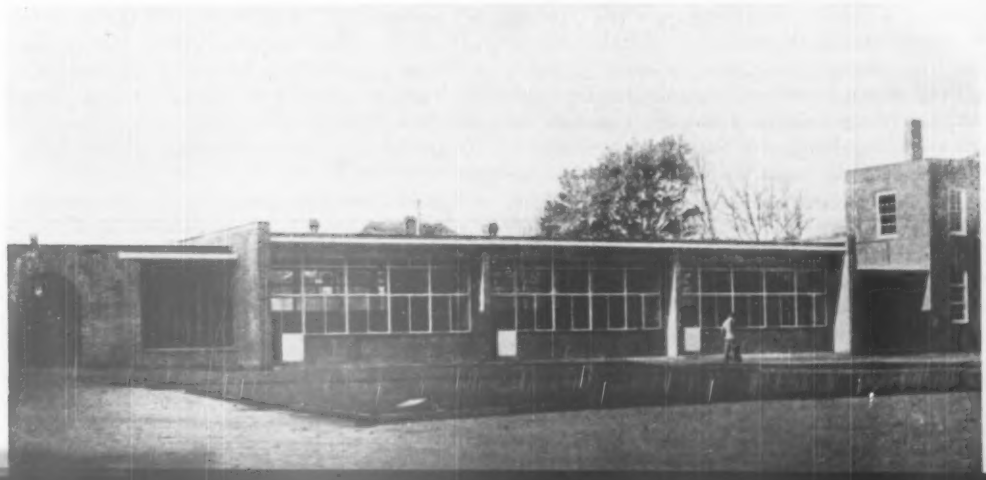


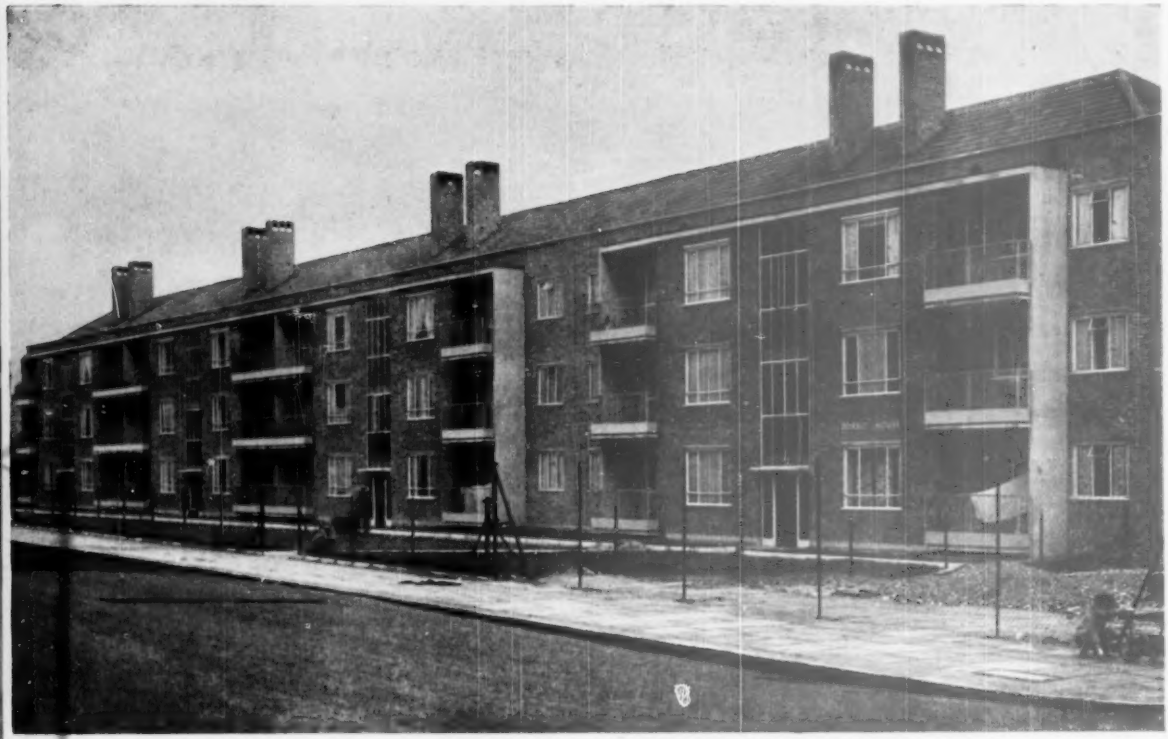




Internally all walls are plastered, floors are covered with oak blocks except the cloakroom and showers and covered way, which are finished with quarry tiles. Metal windows are used throughout except for the window to the future staircase hall which is constructed of hard wood. Borrowed lights along the rear wall of the classrooms admit additional daylight through the corridor. The heating and hot water is provided from the existing low pressure hot water boilers in the lower school building which have been suitably enlarged to take the additional load. Doors throughout are flush plywood faced and painted, and the classrooms have a 3 ft. high hardboard dado in order to keep the walls clean at low level. Cheerful colours have been used throughout in order to accentuate the lightness of the new classrooms.







A three-storey block of fourteen dwellings

HENRY DICKENS COURT

for the Royal Borough of Kensington

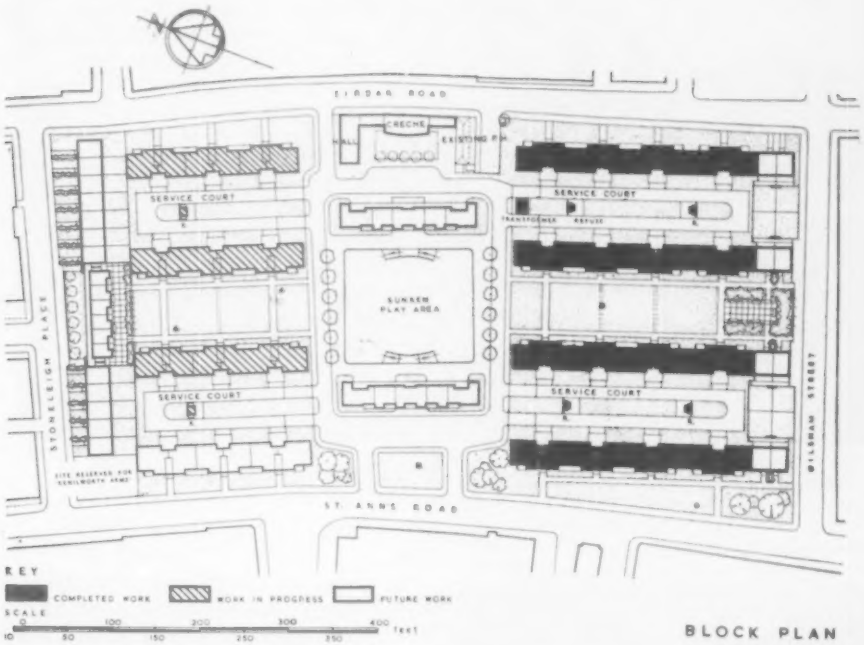
architects: EDWARD ARMSTRONG, F.R.I.B.A.
in association with BRIAN O'RORKE, A.R.A., F.R.I.B.A.
assistant architect: E. Howard Sadler

THESE buildings form the first part of one of the larger housing developments undertaken by the Kensington Borough Council since the war. The scheme when complete will comprise 300 dwellings and ancillary buildings for a population of some 1,300 persons. (A density of 32 dwellings and 136 persons per acre.)

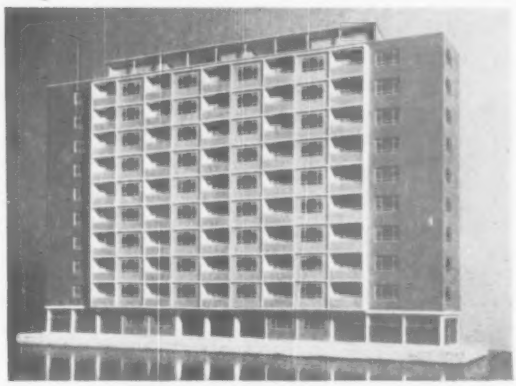
Flats for medium sized families of from four to six persons are planned in three-storey blocks. These blocks have internal staircase approach and those already erected are illustrated in this article. Smaller families of from two to four persons will be housed in ten-storey blocks with passenger lifts, and a shortened form of balcony approach. Families of seven to eight persons will occupy three-storey terrace houses each of which will have its own private garden. Accommodation for single persons is being provided in a block of one-room flats three floors in height of which the ground and first floors will be for older persons and the second floor for the more robust.

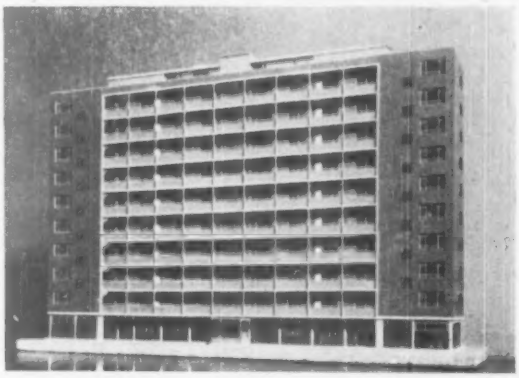
The two-room flats planned on the first and second floors of the ten-storey blocks with lifts will also be reserved for older persons, i.e., married couples or two old friends living together.

The site of 9½ acres is in North Kensington with the



BLOCK PLAN





Proposed ten-storey block. Architects : Edward Armstrong and Frederick MacManus

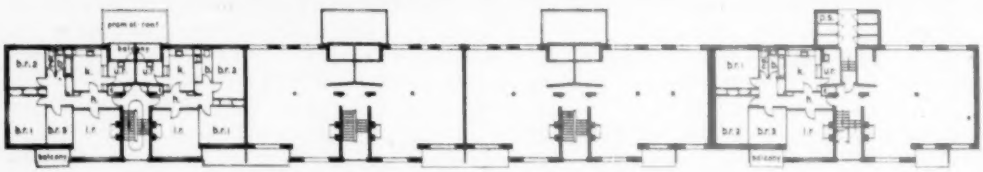
main frontage off St. Ann's Road which at this point coincides with the line of the "B" ring road originally contemplated in the London Plan.

A very simple lay-out pattern has been adopted. This consists in the main of groups of three-storey flats and terrace houses flanking a central space from which, when the scheme is complete, will rise sharply two narrow blocks of ten storeys as illustrated by the photographs of a model. The buildings illustrated are arranged in pairs about a series of service courtyards each pair being separated from the next by an open grassed area. This arrangement allows the development to present a similar front to the major roads on the east and west from which the buildings are again separated by wide forecourts. By grouping the service facilities between pairs of blocks in this way, there is no need to restrict the normal activities of the tenants in order to preserve a tidy outward appearance to the estate.

As seen from the photographs, site works are temporary pending the completion of the project, and trees have yet to be planted.

The completed blocks contain flats for families of 4, 5 and 6 persons. Each common staircase has a front

Above, the front of the flats showing private balconies entered off the living rooms. Below is the view of the opposite side with utility balconies overlooking the service courtyard.



Typical floor plan, 3-storey block. Scale : 40 ft. = 1 in.

HENRY DICKENS COURT, KENSINGTON

entrance from the garden and a back entrance from the service courtyard. Both entrances are provided with glazed self-closing doors to exclude draughts and to assist the domestic character of the buildings.

Pram stores, one for each flat, are planned under cover as part of the back entrance lobby leading to the service courtyard.

The planning of the flats is in certain important respects a departure from the normal, and has been devised to meet the particular needs of families with children and to reduce housework. A segregation between night use and day use zones is obtained by arranging the bedrooms in a group furthest from the common staircase. The entrance lobby which is generous in width leads directly to the living room and kitchen. The kitchen is planned as a dining-kitchen of a size to give proper seating accommodation to all members of the family and in consequence kitchens vary in area relative to the number of bedrooms.

Each of the family flats in the three-storey blocks is provided with a separate utility room with clothes washing equipment, a feature which is proving to be popular with the tenants.

The Utility Room has a recessed back balcony overlooking the service courtyard, where clothes can be aired and odd jobs done. This balcony is additional to the normal private balcony which is planned on the opposite side of the flat. In fine weather, one or other balcony is in direct sunshine—an asset when there are infants in the family.

Between living room and hall are wide glazed doors which brighten the interior of the dwelling and makes it easy for the housewife to keep an eye on small children at play.

Construction & Services

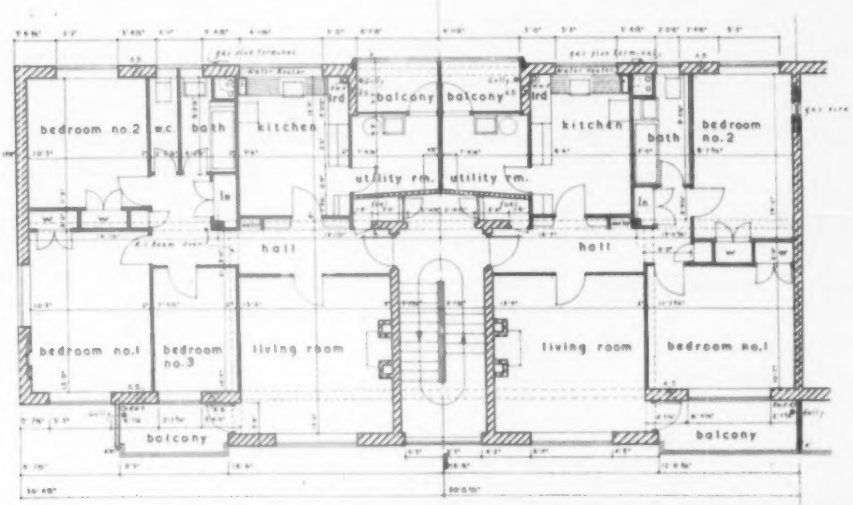
The three-storey buildings are generally of traditional construction. 13½ in. external load-bearing walls with Brown Sussex facings. R.C. hollow tile floors and spine beams. Light steel trusses for the roof covered with double Roman Bridgwater tiles. Balconies and trims are fair faced concrete painted.

Hot water is provided by instantaneous gas water heaters, while space heating is provided by solid fuel fires in living rooms; gas fires in principal bedrooms; sockets for electric heaters in other rooms. The flats are provided with Relay Wireless installations.

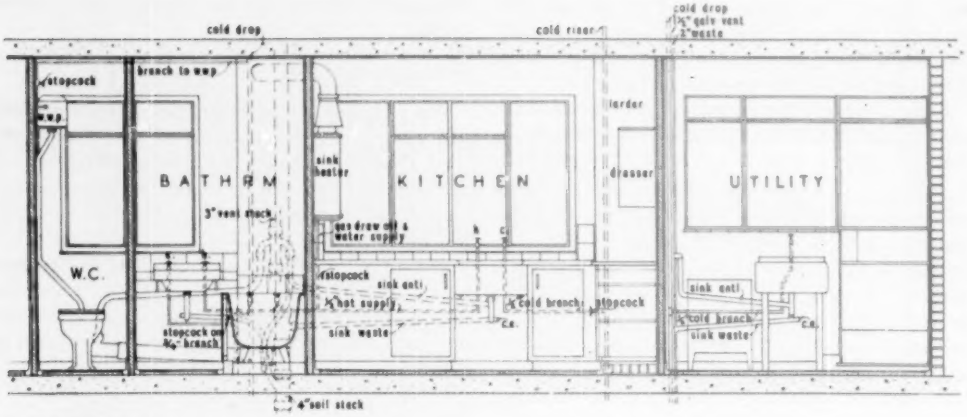
*

GENERAL CONTRACTORS: HOLLOWAY BROTHERS (LONDON) LTD.

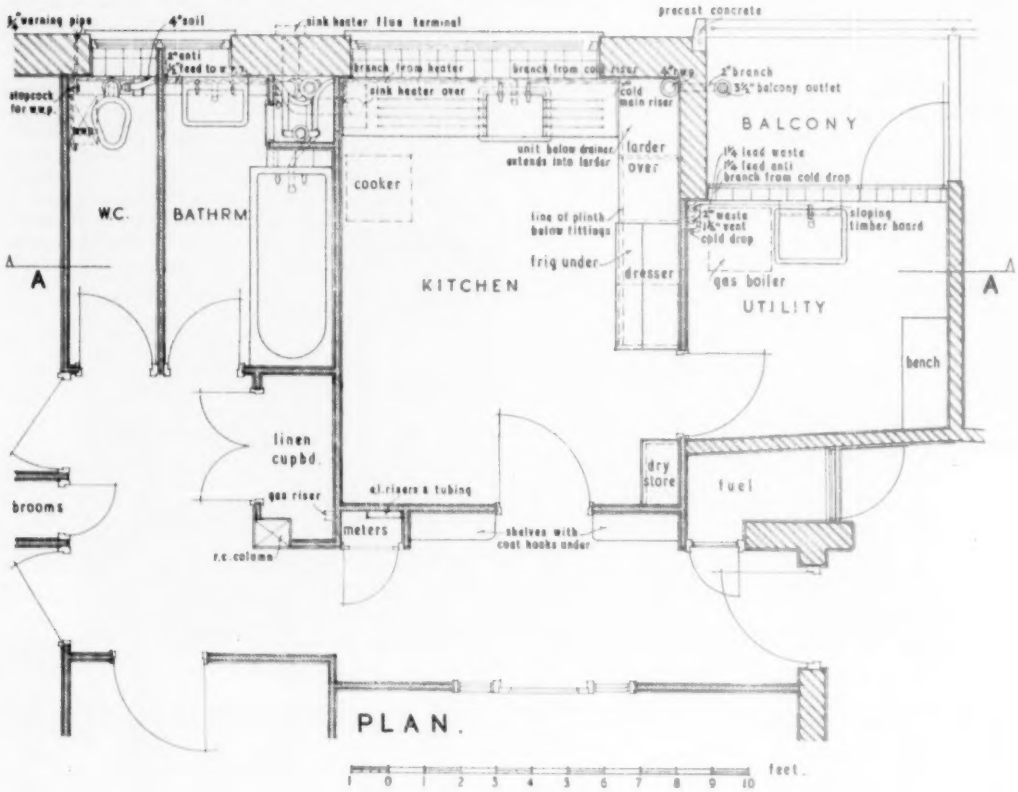
Asphalte: Excel Asphalte Co. Ltd. *Balustrading:* H. & C. Davis Ltd. *Bricks:* Henfield Brick & Tile Co. *Cill Tiles:* Langley London Ltd. *Door:* Yelverton Dawbarn Ltd. *Door Frames—Pressed Metal:* The Crittall Manufacturing Co. Ltd. *Electrical Installation:* Iverson Electrical Ltd. *Fencing:* A. J. Binns Ltd. *Flooring:* Montrose Industries Ltd. *Fireplaces:* B. Finch & Co. Ltd. *Garden Work:* Garden Landscapes Ltd. *Gas Fire Flues:* The Marley Tile Co. Ltd. *Glazing:* Faulkner Greene & Co. Ltd. *Heating:* Eagle Range & Grate Co. Ltd. *Ironmongery:* Nettlefold & Moser Ltd. *Ironwork:* H. & C. Davis Ltd. *Kitchen Fitments:* Built-in-Fixtures Ltd. *Plasterers:* Jeffries & Grant Ltd. *Plumbing:* Holloway Brothers (London) Ltd. *Pram Stores:* Holloway Brothers (London) Ltd. *Roof Tilers:* Roberts Adlard & Co. Ltd. *Sanitary Goods:* H. & C. Davis Ltd. *Stairs and Stonework:* Enfield Stone Co. Ltd. *Structural Steelwork:* The Aston Construction Co. Ltd. *Windows:* Crittall Manufacturing Co. Ltd. *Wireless Installation:* British Relay Wireless Ltd.



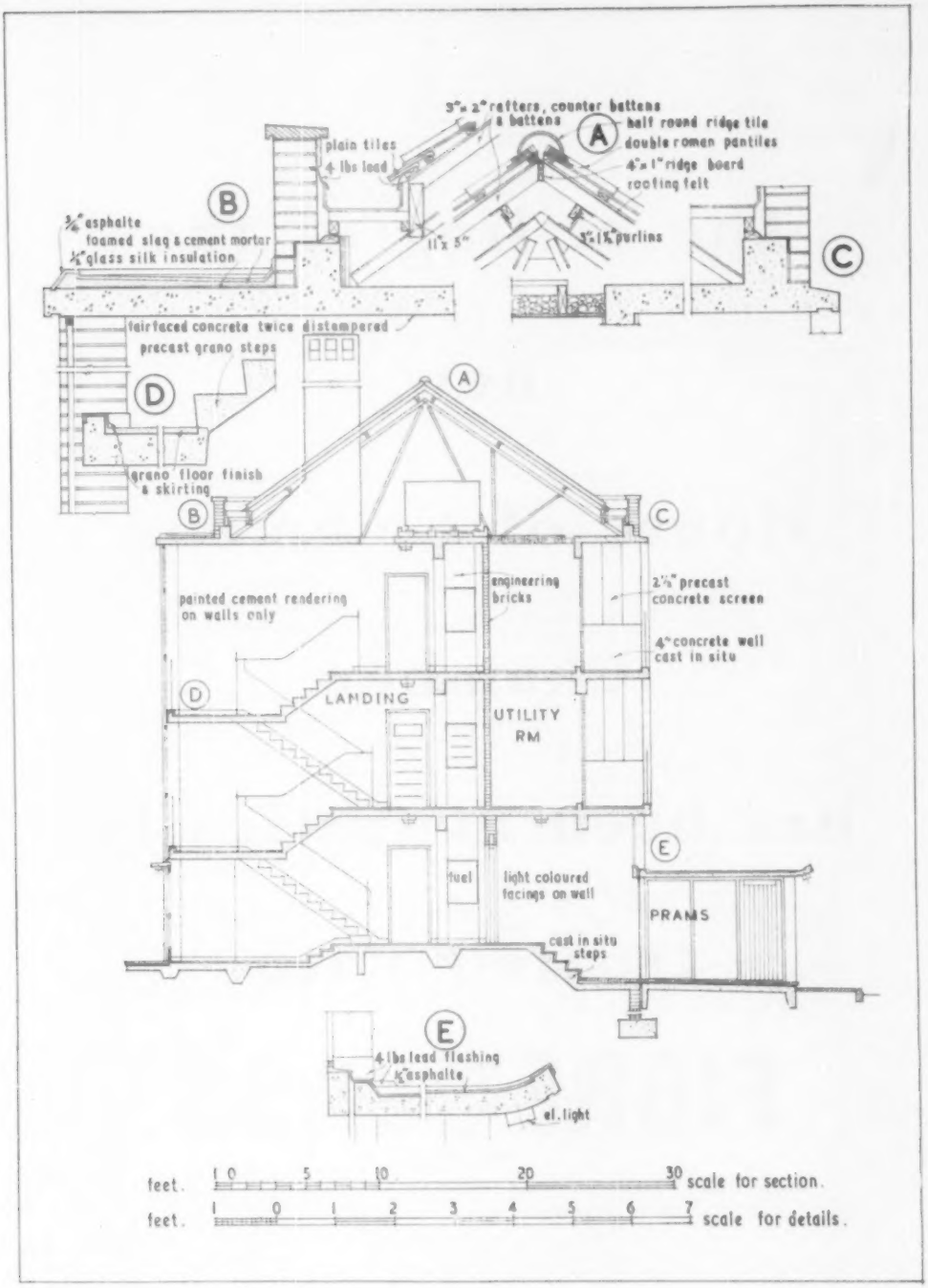
4 ROOM 5 PERSON UNIT 3 ROOM 4 PERSON UNIT



SECTION A-A.



HENRY DICKENS COURT, KENSINGTON



architects: EDWARD ARMSTRONG, F.R.I.B.A.

in association with BRIAN O'RORKE, A.R.A., F.R.I.B.A.

The ceiling of the new House of Commons Chamber has been acoustically treated with

FIBREGLASS

TRADE MARK

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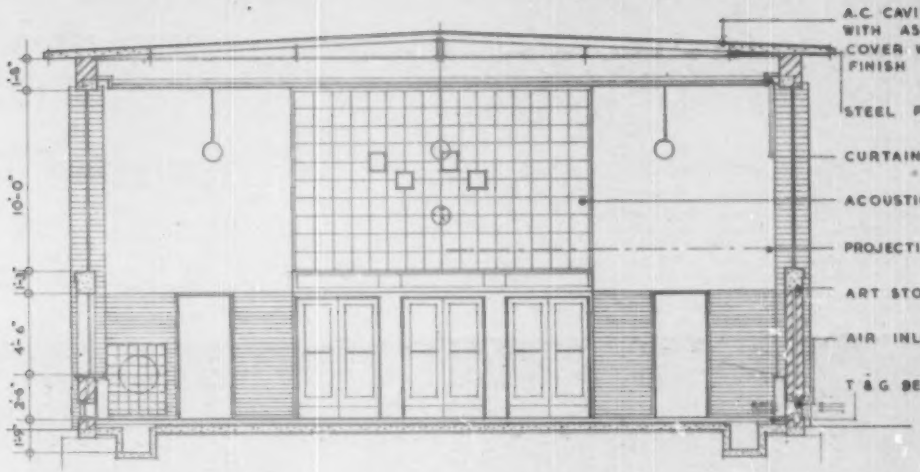
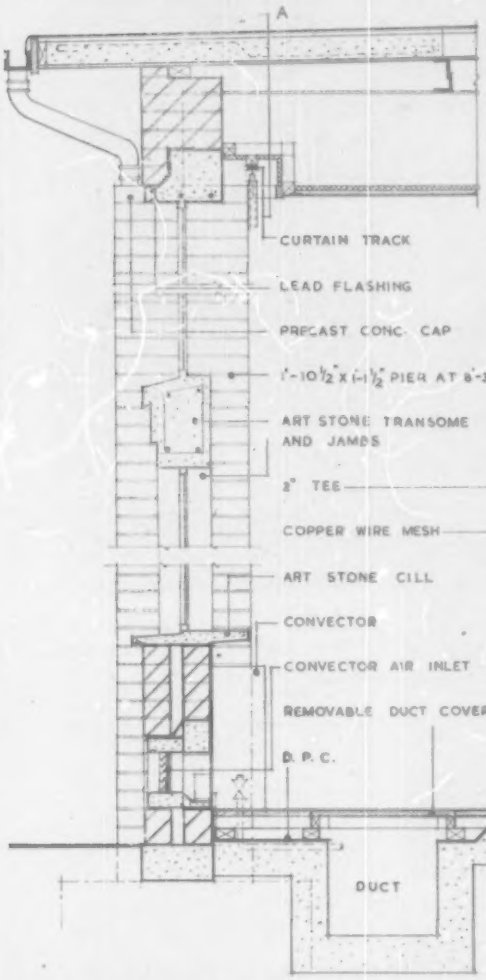
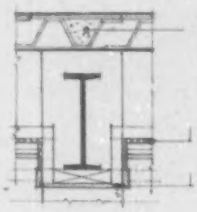


CROSS SECTION THRO' ASSEMBLY HALL .. SCALE. 1/8 TO 1 FT.



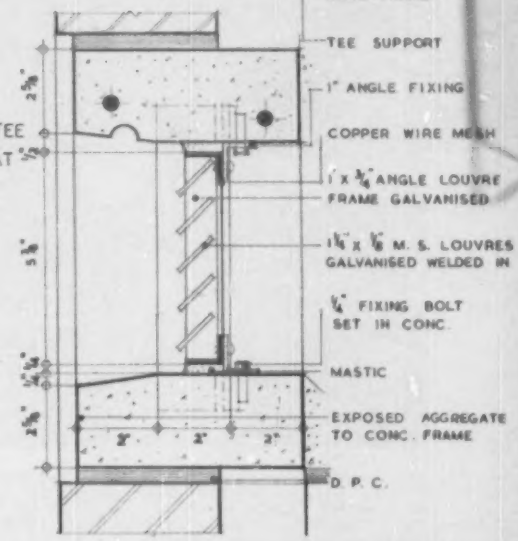
SECTION THRO' WEST WALL OF ASSEMBLY HALL SCALE 1/2 TO 1 FT.


EVERY ALTERNATE CAVITY AT 2'-8" C OF THE ASBESTOS CEMENT DECKING FILLED WITH CONC: TO STIFFEN EAVES
FIBREBOARD 5/8" THICK
¾" WOOD LINING

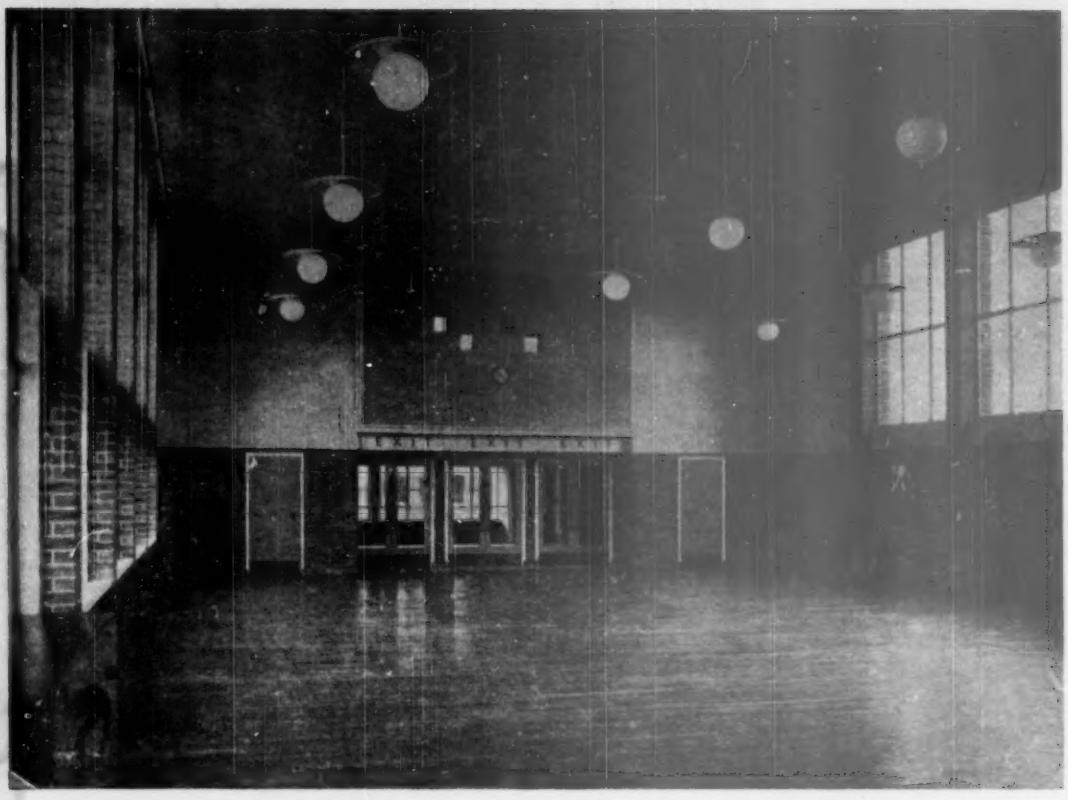
SECTION A A

ELEVATION OF CONVECTOR

PLAN OF TEE SUPPORT AT B-B



¼ FULL SIZE SECTION THRO' CONVECTOR GRILL



SCHOOL ASSEMBLY HALL CONSTRUCTION, LUTON, BEDFORDSHIRE
ARCHITECT: HOWARD V. LOBB

NEWS of the BUILDING INDUSTRY

★ INTEREST ★

MR. E. T. ROBERTS, of Manchester, the President of the National Federation of Plastering Contractors, speaking at the first Annual General Meeting of the Federation in London this month, said that much was being done at national level to stimulate the recruitment of more plasterer apprentices but each individual employer had a responsibility to see what he could do and also to see what could be done by way of training by the local education authorities.

Turning to incentives, Mr. Roberts said that he was well aware that many plastering contractors felt that any system of payment by results was inconsistent with a good standard of plastering. It was essential, however, for costs to be brought down and no satisfactory alternative method of doing this had yet been devised. Plastering contractors should experiment to see whether they could not apply some form of incentives scheme to their work.

*

IF . . . PLANNED ECONOMY means anything at all it is that the administration accepts a large share of responsibility for ensuring that the right materials are available in the right quantities at the right time, said Mr. Robert O. Lloyd, President of the N.F.B.T.E., at a recent L.M.B.A. luncheon.

"We are builders. We did not invent 'planned economy' as we know it to-day. We left that to the politicians, and I consider it to be no more than downright impertinence that those same politicians should presume to criticise the efficiency of the building industry at the present time because of serious shortages of timber, or bricks, or cement, or all three."

Referring to criticisms levelled at the industry, Mr. Lloyd said: "There are some hard-pressed politicians who find it expedient to forsake constructive criticism in favour of frantic, face-saving misrepresentation. This can only be construed as a deliberate attempt to mislead the public at a critical time. . . .

"The criticisms are beginning to wear a bit thin now: funny little sums to show that the ratio of firms to craftsmen is out of proportion, despite the Working Party's conclusion that—and here I quote—the existing layout of building concerns provides the necessary flexibility and variety of capacities required by building operations.

"When one thinks of the motor industry one recalls the names of a dozen or so manufacturing firms who actually make the cars—the producers who make a great contribution to our export drive. One does not, when computing the numbers of employers in the motor industry, add in all the garages and village blacksmiths, making the total number of employers in the motor industry some hundreds of thousands, and then, by dividing the number of employees by the numbers of firms conclude that the motor industry averages 3, 5 or 7 men per firm. Nor, on that account, is it suggested that the motor industry is badly organised. So why should the number of firms in the building industry be quoted as a sign of bad organisation, just because we have some hundreds of small firms all over the country economically carrying out all kinds of useful jobs for the community."

*

THAT LICENCES FOR NEW HOUSES should be issued in quantity to the building industry and not to private owners was the opinion expressed by Mr. Andrew Stewart, President of the National House-Builders Registration Council, at their Annual General Meeting.

The Council urged the Minister of Health to consider this suggestion, as the present system "is resulting in jerry building, low output and high prices . . . it was only by issuing licences in quantity to the building industry that production could be adequately planned, output speeded up and costs reduced."

(*Continued on page* 706)

The N.F.B.T.E. replies to the F.M.B.

The following statement has been issued by the N.F.B.T.E. in reply to the statement made by Sir Harry Selley, President of the Federation of Master Builders. (A. & B.N., Dec. 22)

"It is surprising that, when criticising the joint statement about incentives schemes which was made recently by the National Federation of Building Trades Operatives and the National Federation of Building Trades Employers, Sir Harry Selley, the President of the Federation of Master Builders, should have complained that his Federation was not consulted. He knows full well that it is not represented on the National Joint Council for the Building Industry which deals with wages and conditions and his complaint is, therefore, a tacit admission that his members should, if they wish their interests to be properly safeguarded, join the N.F.B.T.E. which is represented on all the Government Consultative Committees as well as on the National Joint Council.

"Had Sir Harry's Federation been differently placed his members would have been kept fully informed of the progress of the recent negotiations, would have had the agreement fully explained to them, and would, therefore, have realised that it is designed to prevent the attraction of labour from one site to another and, above all, to ensure under a policy of full employment, a fair day's pay for a fair day's work.

"Unlike Sir Harry Selley, the Minister of Works in a public statement* has welcomed the new agreement most warmly, and had described it not only as an important step forward towards the higher productivity in building which is essential to national economy, but also as a signal instance of the determination of both sides of the industry to grapple with the problem of increasing building productivity."

***MESSAGE FROM THE MINISTER OF WORKS ON THE ANNOUNCEMENT OF THE NEW AGREEMENT ON INCENTIVES FOR THE BUILDING INDUSTRY.**

"I have long been convinced that sound incentive schemes can make a major contribution to higher productivity and lower costs in building generally. Incentives can of course be successfully operated only on the initiative of the industry and with the full support and co-operation of both employers and operatives. I therefore welcome most warmly this new agreement, not only as an important step forward towards the higher productivity in building which is essential to the national economy, but also as a signal instance of the determination of both sides of the building industry to grapple with the problem of increasing building productivity.

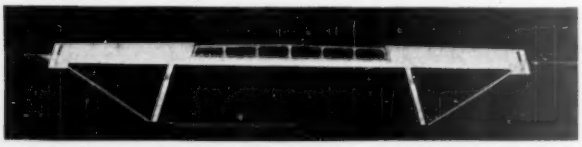
"Now that both sides of the industry have reached this agreement, as the Minister of Health is saying to-day in reply to a written question, it should be possible to obtain more houses for the same amount of capital expenditure; it continues to be the policy of the Government to build as many houses as can be built within the money limit set by the capital investment programme and the available supplies of material.

"Harder work means bigger output and therefore more building. So let us get on with the job."

Frederick Gibberd, F.R.I.B.A., architect for the new market area of the live architecture exhibition, of which "The Festival Inn" forms part, designed the elevations of the inn so that a unity of architectural treatment should be preserved throughout the market buildings. The interior has been designed by R. W. Staddart, F.R.I.B.A., architect of Messrs. Truman, Hanbury, Buxton & Co. Ltd. The inn was recently the setting for a revival of the old building custom of owner and workmen drinking each other's health in "possets" and "candles" on completion of the last chimney stack.

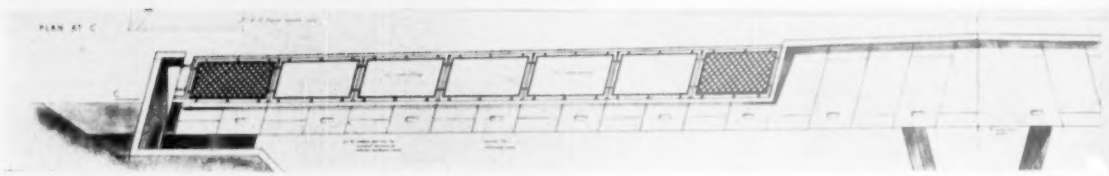
ROAD BRIDGES COMPETITION

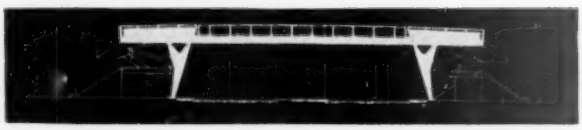
The two designs jointly awarded first premium



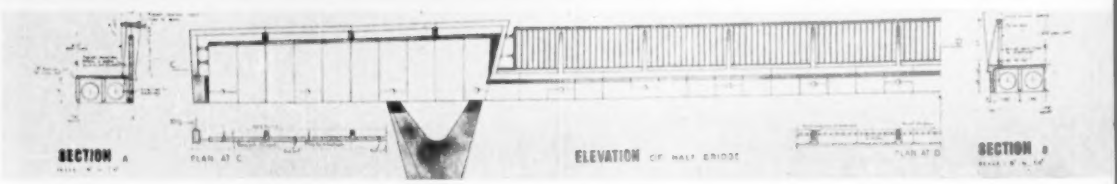
Left and below, elevation and detail of road bridge with 73ft. 0in. span.

Left and below, elevation and detail of road bridge with two or more spans.





Left and below elevation and detail of footbridge.



Design 22 : Drake & Lasdun, A/F.R.I.B.A. and Harris & Johns, A/A.M.I.C.E.

The competition for road bridges organised by the Cement and Concrete Association following the passing of the Special Roads Act in May 1949 was open to engineers and architects normally resident in Great Britain. Competitors were asked to submit one design for each of three types of bridge, all to be suitable for carrying a road or footpath over a motor way. The conditions stipulated that the bridge was to be built of concrete—plain, reinforced or prestressed—or a combination of the three. The assessors were: Sir Percy Thomas, O.B.E., PP.R.I.B.A., M.T.P.I.; J. Cuerel, Esq., B.Sc., M.I.C.E.; A. Moller, Esq., M.I.Struct.E.; E. John Powell, Esq., M.I.C.E., M.I.Mun.E.; J. Reed, Esq., B.Sc., M.I.C.E., M.I.Struct.E., M.Cons.E.

Twenty-five designs were received. The assessors commented that, generally speaking, the standard of design, both from an engineering and aesthetic point of view was below what might have been expected. The majority of designs showed little attempt to depart from stereotyped solutions and very few showed any real architectural qualities combined with sound engineering knowledge.

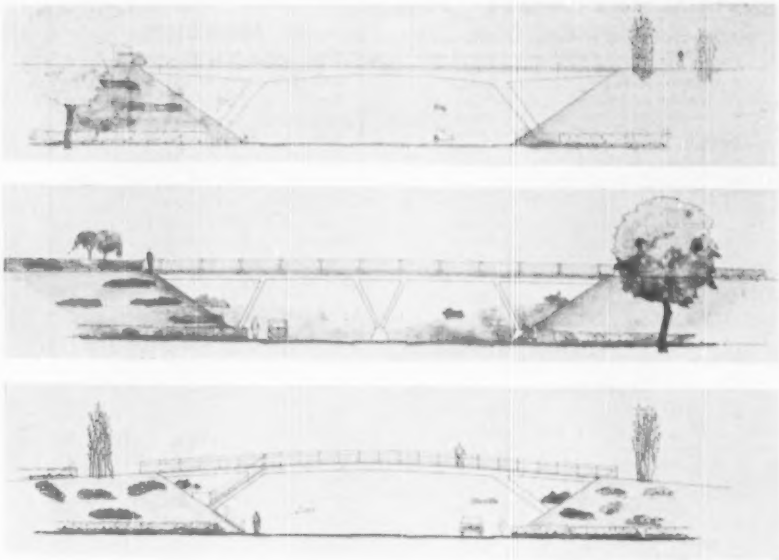
The three premiated designs were all submitted by engineers working in conjunction with architects.

The prizes offered were £500, £300 and £200. The assessors decided however that designs 22 and 14 were so equal in merit that the first prize and second prize have been combined. The joint winners of the first premium were as follows:

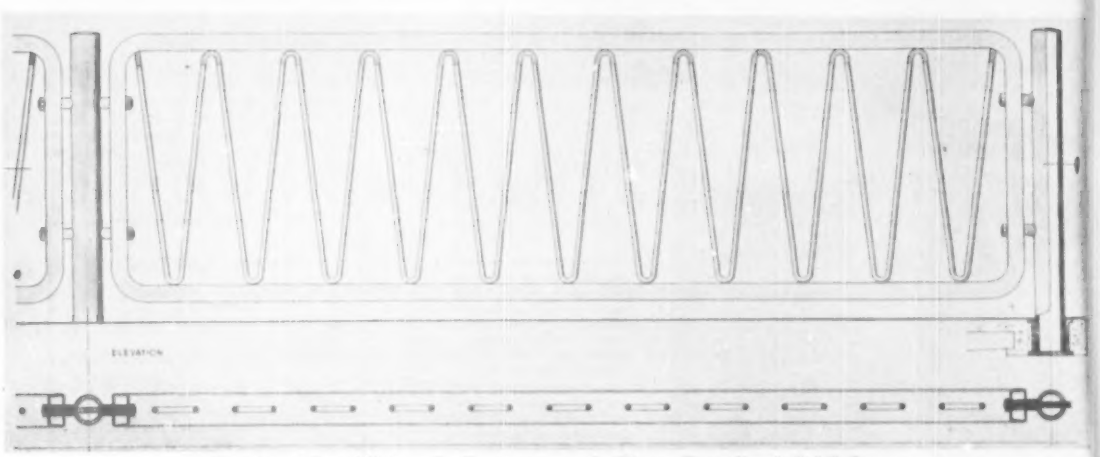
No. 22. L. Drake, A.R.I.B.A., D. Lasdun, F.R.I.B.A.; A. J. Harris, B.Sc., A.M.I.C.E., W. M. Johns, M.C., B.Sc., A.M.I.C.E. (£400).

No. 14. Alkins and Partners and Clive Pascall, A.R.I.B.A. (£400).

Authors of the design placed third (£200) were Louis Erdi, L.R.I.B.A., and A. J. Birkmyer, A.M.I.Struct.E.



Left : elevations of the three types of bridge. Top : the roadbridge with 73ft. 0in. span. Centre : the roadbridge with two or more spans, and bottom, the footbridge. Below : Detail of railings for the two roadbridges.



Design 14. Alkins & Partners and Clive Pascall, A.R.I.B.A.

In design No. 22 the road bridge with 73 ft. span has been designed as a three-span continuous prestressed concrete slab bridge, the intention being to employ as far as possible the same form of precast concrete unit for all three bridges. The beams forming the slab are made up of precast sections assembled and tensioned on trestles at the level of the bridge profile so that the beams can be easily moved into position. The deck concrete is then poured between and over these beams which are then stressed transversely.

The general considerations applying to the form of the road bridge with two or more spans are similar to those applying to the 73 ft. clear span bridge. This bridge is composed of two simply supported spans resting on soil cement abutments at the outer extremities with a precast "V"-shaped central support. The general construction method is similar to that for the single-span road bridge.

The footbridge consists of a slab made up of four box beams side by side and tied together transversely at the cantilever extremities, at the support and at midspan. The slab sits upon two "Y"-shaped supports.

In design No. 14 the 73 ft. span bridge has a portal type framework of monolithic reinforced concrete cast in "U"-shaped precast concrete shuttering propped from below and carrying the precast formwork for the slab between the ribs.

No special surface treatment is envisaged. The casing to the main ribs, the legs and underside of the deck being all precast, a fine natural finish will be obtained without further cost.

The road bridge of two or more spans consists of a number of precast beams placed on supports which are hinged at the top and base, the beams being connected up by a short length of in situ concrete.

This design has been evolved from that for the single-span bridge. A feature has been made of the central support in the form of an inverted "A" frame. This takes advantage of the full width of the central reservation without impairing visibility.

A jointed portal frame forms the basis of the footbridge design. A light deck spans between two such frames which are braced laterally at intervals by cross beams.

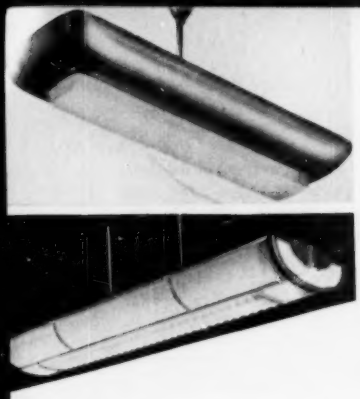
The raking outer supports are used in a secondary role as stringers to support a staircase, should this be required, by leaving slots in the legs into which precast concrete treads can be fixed.

The main structure is composed of precast concrete units, the deck itself being cast in situ.

The assessors made the following general criticisms:

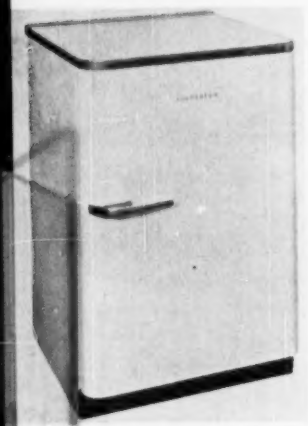
i. Over-emphasis on precasting coupled with lack of development of the jointing.

ii. The fact that the bridges would be constructed before the opening of the motor road does not appear to have been given sufficient consideration.



SERVICES—FLUORESCENT LIGHTING
B 1/3

Two new developments of fluorescent lighting fitting. The upper picture shows a fitting designed for domestic use. For small rooms a 4 foot fitting is out of scale and the two foot fitting with 20 watt lamp gives low illumination. The new fitting is a 2 foot type with four 40 watt lamps. The diffuser tray of opal "Perspex" is contained in a metal surround with bronze external finish and white enamel internally. The lower picture shows a 5 foot 80 watt fitting which is now marketed in two forms —three lamp and four lamp. Reeded glass diffusers are held between satin bronze finished end frames. The twin rod suspension is interchangeable with chain suspension. A special plate and cover can be supplied for fixings where the joist spacing is not 24 inches. Total weight of this model is 68 lbs.



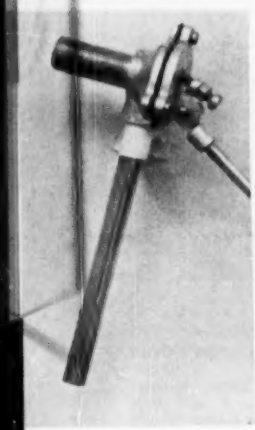
FITTINGS—ELECTRIC COOKERS, REFRIGERATORS, ETC.
C 1/2

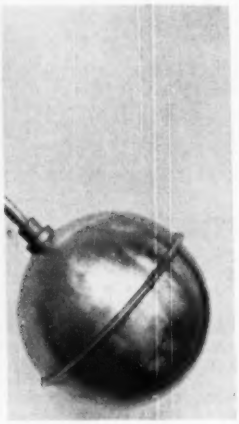
The net storage capacity of this refrigerator is 4.5 cubic feet: shelf area is 8.8 square feet. The height is 36½ inches: width 24½ inches: depth 24 inches plus 1½ inches for handle projection. The shell is of bonderised sheet steel. On top is a working surface of "Formica."

Insulation consists of 2 inch thick fibre glass sealed against moisture penetration.

Interior illumination is automatic. The motor compressor unit is suspended on springs to eliminate noise and vibration.

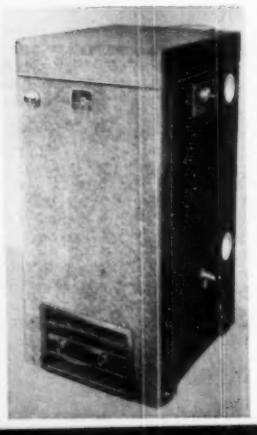
The refrigerator operates direct from A.C. 222/250 supply. An auto transformer is available for other voltages.





SERVICES—PLUMBING
B 4/2

The water intake through this ball valve is controlled by a rubber diaphragm and not by the usual plunger. As the ball rises an adjustable bolt presses the diaphragm against the mouth of the inlet pipe. The diaphragm is easily replaceable by screwing down an integral "shut-off" valve and removing the cover plate. Incoming water does not splash over the pin and control screw on the ball valve arm and as metal parts are "Staybrite" steel the tendency to rust is reduced.



SERVICES—HEATING
B 3/8

Two models (1950) in a new range of gas fired boilers for central heating and domestic hot water supplies. Left is a 60,000 B.Th.U. model: right 210,000 B.Th.U. model. The latter is 47 inches high x 23½ inches wide x 27 inches deep plus 10 inches overhang for fume outlet. Fuel consumption varies from 70 cu. ft. per hour for domestic models to 560 cu. ft. per hour for industrial types.

MOSAICS

The names and addresses of manufacturers of any item illustrated in MOSAICS, together with more detailed information relating to their products—including price and availability—will be forwarded to readers on request.

Letters should quote the serial number and be addressed to:

The Associate Editor,
The Architect and Building News,
Dorset House,
Stamford Street, S.E.1.

Please mark the envelope MOSAICS

INTEREST (continued)

BEFORE CONSIDERING INCENTIVE BONUSES the industry should recover its 30 per cent. loss of productivity: this was the view expressed by Councillor Macpherson Rait at the annual dinner of the Glasgow Master Wrights and Builders Association in Glasgow recently.

*

THE LONDON BUILDERS' FOREMEN'S ASSOCIATION president for 1951 is Mr. R. G. Huntington.

Among the other officers of the Association elected are Mr. A. T. Bint, Vice-President; Mr. W. Wardle, Treasurer; Mr. F. Dryland, Secretary; Mr. G. W. Gathercole and Mr. W. T. Eagles, Trustees.

M.o.W. LECTURES

January 2

Techniques and Devices for Improving Bricklaying Output.
7.0 p.m. Town Hall, BASINGSTOKE.

January 10

Powered Hand Tools.
7.0 p.m. Digbeth Institute, BIRMINGHAM.

*

Structural Use of Reinforced Concrete in Building.
7.15 p.m. Gas Showrooms, Albert Square, MANCHESTER.

*

The Behaviour of Clay in Foundations.
7.0 p.m. Literary and Philosophical Society, Westgate Road, NEWCASTLE-ON-TYNE.

January 11

Introduction to Programming and Progressing for Builders.
7.15 p.m. Central Y.M.C.A., CARDIFF.

*

Good Practice in Plumbing.
7.15 p.m. City Technical College, LIVERPOOL.

January 12

Mechanisation of Small Jobs.
7.0 p.m. Swan Hotel, HIGH WYCOMBE.

Hills Lantern Lights at New Factory for Messrs. W. Canning & Co. Ltd. Architects: Harry Bloomer & Son.

STANDARD LANTERN LIGHTS

The above illustration shows Standard and Purpose Made Lantern Lights recently installed on the water-cooled roof of a new factory for Messrs. W. Canning & Co., Birmingham. Hills Lantern Lights incorporate special lead clothed Ridge and Hip Bars which eliminate the heavy cost of separate lead flashings. Interlocking cast iron corner posts and malleable iron finial connections impart rigid strength to each unit. These are available in a wide range of Standard Sizes, and can also be made to specific dimensions. Hills also specialise in Lead and Aluminium Roof Glazing; any degree of ventilation can be incorporated, from cord-operated single pane opening lights, to continuous stretches, electrically operated by tension rod gearing. List No. 209, giving full details of the complete range of Standard Lantern Lights, will be sent free on request.

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GOOD, BAD OR INDIFFERENT ?

By A. FOREMAN

No. 17

To Lag, or not to Lag,

THERE is a considerable difference of opinion regarding the need to lag small hot water systems and also, if it is decided to lag, what part of the system should and should not be covered, with fuel prices as high as they are today almost any saving is probably worthwhile. When immersion heaters or gas circulators form part of the system for summer use, lagging of the storage tank or cylinder is essential and further they need to be very well lagged as they are usually operated at high temperatures. For ordinary boiler-operated systems with hot water at about 150 deg. F. an insulating jacket is usually sufficient for the storage container; these jackets may be purchased ready made filled with slag wool, glass fibre and similar materials; ready-made jackets are usually inadequate for use with immersion heaters and either a plastic material such as magnesia or asbestos should be trowelled on or an enclosure round the tank should be filled but not tightly packed with granulated cork or loose slag wool 2 in. thick on the sides and 3 in. on the top; the top needs more insulation as that is where the water is hottest and the heat loss greatest. The enclosure method can be rather a nuisance if access to the tank is ever needed as it means pulling out the loose filling; it is a method which is very difficult to apply to cylinders.

The plastic types of insulation, although rather messy to install, are the most effective and reliable. The bottom of storage containers are not usually lagged as they are not very hot due to the entry of the cold feed but if they do get hot it is an outlet for the excess heat which prevent the systems boiling.

Some people seem frightened of lagging the storage container if this is in a linen cupboard in case there is not enough heat. This is a very mistaken idea as it will be found that even a well insulated container will keep the linen aired. In fact, once aired, linen should not be kept hot as it tends gradually to loose its strength and to discolour.

While the lagging of storage containers is, in most cases, desirable to reduce the heat loss it is not so necessary for the pipe work of the system, especially if the length of piping forming the circulation is small. In fact it is often argued that the small heat loss from piping is a gain as a means of heating the building but there are really better means of achieving this. Where pipes are of small diameters the fuel saving by lagging is very small but when pipes are large, say over 1½ in. the economy due to lagging may amount to a real saving. When there is a secondary circulation it is usually worth lagging the primary flow and return. By the way, if the system is too well lagged and there is too small a storage tank you run a risk of the temperature rising to boiling, particularly in the night, which increases the deposit of scale and must be guarded against in hard water districts by proper relation of boiler output, when running shut up, to the size of the storage.

Pipes may be lagged in several ways. The best is again a plastic material but it is messy to apply, requires two coats and the system running to provide heat to dry out each coat; it is not easy stuff to apply unless the operative is skilled and experienced. An easier method of insulation to install is ready-made preformed sectional pipe covering, usually supplied in two halves which are clipped on, although the bends and turns are a little difficult to make nicely. Probably the easiest method to use is the flexible strip coverings which have fabric backs although some types do not look very neat unless very skilfully applied as they may show the rough edges of the backing or appear lumpy due to uneven wrapping round the pipes.

The thickness of pipe lagging varies according to the material used; generally ½ in. is needed although some types, such as asbestos and magnesia, need ¾ in. Draw-off or dead-leg pipes are not worth lagging unless they are exposed in positions such as in roof spaces. Pipes which are placed in floor thicknesses should, however, be lagged especially in ceilings of top floors.

While we are on the subject of lagging we are approaching the time of the year when frost troubles occur and the building industry receives its annual kicks. Really there is no reason why we should have these troubles whenever there is severe frost, except perhaps in some old buildings where the cost of changes in plumbing might be very high. They may be avoided by taking simple precautions, the cost of which are extremely small as a part of the initial cost of erecting any building. All the precautions in the world will not, of course, eliminate trouble from dripping taps, due to carelessness or lack of maintenance, when waste pipes are placed externally. To place waste pipes inside does add quite a bit to the cost but it is probably worthwhile even if some authorities do not favour it.

The first, simplest and cheapest precaution is to run rising mains and all down cold feed pipes on inside walls well away from external walls and ventilators: these positions also take the pipes away from the eaves where they are apt to be so inaccessible that lagging cannot be adequately applied and where they are most likely to freeze.

The second precaution is to lag all pipes both hot and cold, which may be exposed to cold and especially to draughts whether in the roof space or elsewhere and, lastly, if the cold water cistern or any small feed cisterns to radiator systems are in the roof to, enclose them and cover the tops leaving only the necessary holes for the expansion pipes to pass through them to discharge into the cisterns. The easy way to insulate cold cisterns is to make a very light framing and to cover it with two thicknesses of ½ in. insulation board; if two thicknesses are used the corner joints may be lapped to secure a good cover in a manner that is better than using one 1 in. thickness. It is not usual to insulate under cisterns. The cost of all these precautions is very small and is likely to be less than one repair job.

DOMESTIC FUEL APPLIANCES

This series of articles summarises the main features of domestic solid fuel appliances with particular reference to recent improvements. Such improvements as have so far been made—and inevitably confined mainly to new homes—are due first, to the greatly improved performance of post-war appliances and, second, to the greater attention which is now paid to heat conservation in buildings. In the past, design of appliances had stagnated essentially because the relative cheapness of fuel counteracted any incentive to evolve new types which would operate more efficiently. To-day, manufacturers are officially encouraged to improve considerably on pre-war models. The Ministry of Health for example issues a list of appliances for the guidance of local housing authorities and it is a condition for obtaining the subsidy that only such improved appliances shall be installed in new houses. Appliances on the approved list have all been type-tested by the Ministry of Fuel and conform to prescribed minimum standards of performance. The principal appliances are open fires, stoves, domestic hot water boilers, cookers and combination grates, and it will be convenient to deal with them in that order.

The open fire is the traditional domestic heating medium in Britain and in spite of its lower thermal efficiency as compared with the stove its popularity remains virtually undiminished. The typical pre-war open fire generally had a thermal efficiency of not more than 20%. To-day, in the improved open fire this figure is roughly doubled. The changes which have been made are briefly as follows: not all of them have a direct bearing on increased thermal efficiency, some are directed to greater convenience for the user.

Improved Air Control

Most important is the greatly improved control over combustion. In the pre-war models there was, as a rule, only the crudest means for regulating the supply of air to the fire so that the fuel often burned away too rapidly giving off unwanted heat. Most modern fires—a typical one is shown diagrammatically in Fig. 1—are provided with a tightly fitting ash door and the joints between

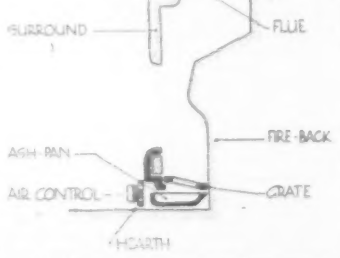

Fig. 1. Diagram showing principal components of an open fire.

the fret and the surround are designed to be tightly sealed during installation so that uncontrolled air is prevented from reaching the fire-bed. An air inlet with some form of regulating device, such as a spin wheel, is incorporated usually in the ash door so that air can be admitted in controlled amounts.

Continuous Burning

Many modern fires are also provided with a closure plate which can be used to restrict the air flow over the top of the fire and thus further reduce the rate of combustion when so desired. The plate is usually incorporated in the appliance and is designed to hinge or slide over the fire, though sometimes a detachable plate is provided. With an appliance thus equipped a very low rate of combustion is possible and provided the fire-box is of sufficient capacity and suitably insulated the fire will burn quietly all night. The advantages of overnight burning are the elimination of

the daily drudgery of fire lighting, the maintenance of background warmth during the night ensuring a warm room in the morning and, where a back boiler is included, the certainty of a supply of hot water first thing in the morning. Ministry of Fuel minimum standards of performance stipulate that fires designed for overnight burning should be capable of remaining alight 10 hours and that fuel consumption during this period should not exceed 10 lbs. (a limiting consumption well in excess of the actual performance of many continuous-burning fires.)

Continuous burning is not necessarily inconsistent with fuel economy as the more steady rate of burning, as compared with the fluctuating performance of an intermittent fire, generally ensures higher thermal efficiency.

Fuel consumption for normal burning varies from ¼ lb. to 3 lbs. per hour and for a continuous burning fire, when closed down, sometimes as little as one-third of a lb. an hour. Total consumption for 24 hours' continuous burning under normal conditions might be of the order of 20 to 25 lbs.

Wide Range of Fuels

A feature of the modern fire is its ability to burn a wide range of fuels, not only bituminous coal but coke and other smokeless fuels. This improvement is related to the larger capacity of the fire-box—necessary to accommodate the greater bulk of coke which for equal weight (and equal calorific value) occupies about twice as much space as coal—and also to the better insulation of the fire box, in particular by the inclusion of firebrick at the front as well as at the back and sides. It is these requirements which give the modern open fire its characteristic high front.

Gas Ignition

Fires designed to burn smokeless fuels and fires for intermittent burning are now generally equipped with gas ignition which eliminates the labour of fire lighting. The appearance of the gas connection is not always entirely satisfactory, but by careful detailing it is possible completely to conceal the pipe by taking it down through the fire base and under the hearth to a skirting pattern gas cock.

Convection Heating

By allowing air to circulate in contact with the hot back and sides of the fire, heat which was formerly wasted is now effectively utilised. In "convector" fires the fire is surrounded by a narrow space or convection chamber into which air for warming is introduced at low level and on becoming heated ascends and is discharged into the rooms from suitable openings at the top of the chamber. The chamber may be integral with the appliance itself or it may be formed of brick and concrete by the builder. Air may be introduced through grilles in the lower part of the surround, through grilles at the back of the chamber, the air in this case being drawn from the adjoining room, from the hall usually, via an underfloor duct, or, in an existing house perhaps from the ventilated underfloor space. Warm air may be discharged into the same room in which the appliance is installed, into an adjoining room or by means of vertical ducts to the bedrooms on the floor above. By the use of closeable grilles warm air can be directed where required. In the light of experiments, it is doubtful if, in well insulated houses, vertical ducts for convection heating are justified, as it seems likely that the natural circulation of warmed air within the insulated envelope ensures effective heat distribution without the assistance of ducting. One of the architectural design problems frequently encountered with convector fires is the treatment of the surround with its inlet and outlet grilles. There is much to be said for a prefabricated surround of cast iron or other suitable material such as that illustrated in Fig. 2. Such a surround simplifies installation and good contemporary designs along these lines might be welcomed by many architects who have experienced the difficulties of welding diverse components into a surround that is both technically satisfactory and aesthetically pleasing.

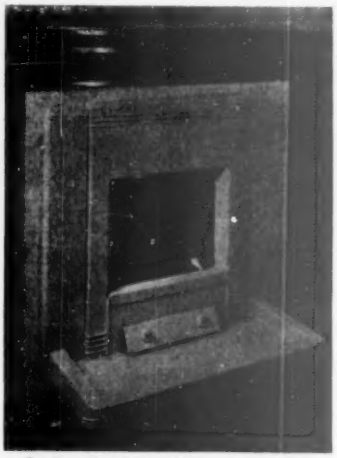

Fig. 2. Open fire with integral cast iron surround incorporating inlet and outlet grilles for warm air.

Water Heating

Most modern open fires can be supplied with or without back boilers. Generally the incorporation of a boiler involves some reduction in the space heating output of the fire but its overall thermal efficiency is increased. Ministry of Fuel minimum test requirements for non-convector fires with boilers stipulate a minimum boiler efficiency of 20% and an overall efficiency of 40%. For convector fires with boilers the minimum overall efficiency is 50%. It may be noted that non-continuous burning open fires with back boilers are not included on the Ministry's approved list as it is held that appliances with boilers should always be continuous burning.

Labour Saving Devices

In addition to gas ignition to which reference has been made above, present day fires are equipped with several other labour saving advices. In particular mention should be made of the provision in several makes of fire of deep ash pits. These generally hold up to one week's supply of ash and eliminate the daily labour of ash removal.

The relative proportions of radiant heat, convected heat and hot water delivered by different fires varies considerably but the following figures may be regarded as fairly typical:

Heat Service	*Convector Open Fire without Back Boiler*	*Convector Open Fire with Back Boiler.*
Radiant heat ..	25%	20%
Warm air ..	20%	15%
Hot water ..	—	15%

INTEREST ★

Continued from page 706

A COURSE OF SIX LECTURES on "Copper in the Building Industry" will be given at the Building Department of the South East London Technical College, Lewisham Way, S.E.4 (Tel.: Tideway 1421). The lecturers are Dr. E. Carr, B.Sc., A.M.I. Mech. E., and B. H. Morgan, B.Sc., A.I.M.

The lectures are intended for Architects, Builders, Surveyors and Civil, Structural and Constructional Engineers, and will be of an advanced character. Applicants for the course should be suitably qualified by a degree, higher national certificate or membership of a professional Institute or possess sufficient professional and industrial experience.

The main topics of the lectures are as follows:

Tuesday, January 16—History of Copper (lecture and film).

Tuesday, January 23—Manufacture and use of Copper Tube in Building (lecture and film).

Tuesday, January 30—Manufacture and use of Copper Sheet and Strip in Building (lecture and film).

Tuesday, February 6—Metallurgy of Copper and Alloys (lecture).

Tuesday, February 13—Bronze, Brass and Gunmetal, Cupro Nickels and Cupro Steels, etc. (lecture).

Tuesday, February 20—Uses of Coppers and Alloys in Buildings equipment and services (lecture).

The fee for the course will be £1 15s., and enrolment forms may be obtained on application to the Head of the Department, M. C. Heath, Esq., M.I.O.B., and should be completed, if possible, before the date of the first lecture.

A course of six lectures will also be run at the South East London Technical College on "Structural use of Timbers in Building."

These lectures will be given by D. D. Moss, Esq., A.M.I.Struct.E., and will be given each Friday, from 7 p.m. to 9 p.m., commencing on March 2, 1951.

The main topics are:

March 2—Improved methods of jointing and their influence on the design of framed structures. Modern adhesives and the development of glued laminated construction. Examples of modern timber design. Lecture illustrated by slides.

March 9—Selection and grading of timber. The purpose of stress-grading and the principles on which it is based. British Standard 940: Parts I and II. Stress-grading in practice. Lecture illustrated by lantern slides.

March 16—Load assumptions. The Code of Functional Requirements, Chapter V—"Loading." Design assumptions. Introduction to the draft British Standard Code of Practice: "The Structual Use of Timber in Buildings." Basic stresses and modification factors of general application.

April 6—Design of beams. Modification factors for members in flexure. Design of columns and struts. Modification factors for members in compression. Combined flexure and axial compression.

April 13—Connections. Design of joints with timber connectors. Use of nails, screws and bolts. Typical details of joints. Adhesives.

April 20—Design procedure for framed structures. Design of a typical timber roof truss. Introduction to the design of glued laminated structures.

Fee for the course is £1 15s., and enrolment forms for this course may also be obtained from the Head of the Department,

CONTRACT • NEWS •

*Notes below give basic data of contracts open under locality and authority which are in bold type. References indicate: (a) type of work, (b) address for application. Where no town is stated in the address it is the same as the locality given in the heading, (c) deposit, (d) last date for application, (e) last date and time for submission of tenders. Full details of contracts marked * are given in the advertisement section.*

OPEN

BUILDING

ALCESTER R.C. (a) Houses at Haselor, Marlcliff and Wilmcote. (b) Francis B. Andrews & Son, 95 Colmore Row, Birmingham, 2. (c) 2 Gns. each scheme. (e) Jan. 17.

* * *

BECCLES B.C. (a) 28 houses, Kemps Lane. (b) Housing Surveyor, Town Hall. (c) 1 Gn. (e) Jan. 8.

* * *

BRISTOL C.C. (a) Maintenance Depot, Greystoke Avenue, Southmead. (b) W. J. Stenner, 29 Berkleley Square, Clifton, Bristol, 8. (c) 2 Gns. (d) Dec. 30. Approx. cost £6,000-£7,000.

* * *

CARLTON U.C. (a) 40 flats, Valley Road site. (b) Engineer and Surveyor, Council House, Burton Road. (c) 2 Gns. (e) Jan. 15.

* * *

ENFIELD U.C. (a) 12 flats, Baker Street. (b) Engineer and Surveyor, 7 Little Park Gardens. (c) 2 Gns. (d) Jan. 2. (e) Jan. 19.

* * *

GOSPORT B.C. (a) 89 houses, Rowner Estate. (b) Borough Surveyor, Town Hall. (c) 2 Gns. (e) Jan. 24.

* * *

HAMBLEDEN R.C. (a) 20 houses and 20 flats, Milford. (b) Engineer and Surveyor, Council Offices, Bury Fields, Guildford. (c) 5 Gns. (e) Jan. 17.

* * *

HUNTINGDON B.C. (a) 12 houses, American Lane site. (b) Lea, Milner, Doe & Wardley, 4 Market Hill. (c) 2 Gns. (e) Jan. 10.

* * *

KIDDERMINSTER B.C. (a) Public Health Depot, Hoobrook. (b) Borough Engineer, 110 Mill Street. (c) 2 Gns. (e) Jan. 10.

* * *

KIDDERMINSTER B.C. (a) 22 houses, Birchen Coppice Estate. (b) Borough Engineer, 110 Mill Street. (c) 2 Gns. (e) Jan. 15.

* * *

LEEDS CORPORATION. (a) County Primary School, Beckett Park Estate. (b) City Architect, Priestley House, Quarry Hill, Leeds, 9. after Dec. 30. (c) 3 Gns. (e) Jan. 22, 12 noon.

* * *

LEEDS CORPORATION. (a) Foundations, drainage, site works. Iveson House County Primary School. (b) City Architect, Priestley House, Quarry Hill, Leeds 9. after Dec. 30. (c) 3 Gns. (e) Jan. 22, 12 noon.

* * *

LEEDS CORPORATION. (a) Alterations and additions, Clarendon Road and Hyde Terrace. (b) City Architect, Priestley House, Quarry Hill, Leeds 9 after Jan. 1. (c) 3 Gns. (e) Jan. 22, 12 noon.

* * *

LONDON—LEYTON E.C. (a) Additional classrooms, Canterbury Road and Newport Road Primary Schools. (b) Borough Engineer, Town Hall, Leyton, E.10. (d) Jan. 1.

* * *

LEAMINGTON SPA B.C. (a) 27 houses, Stud Farm Estate. (b) Rayner & Fedeski, 28 The Parade, (c) 2 Gns.

* * *

LINCOLN C.C. (a) Rebuilding 34, 36 and 38 Avondale Street. (b) City Architect, Stamp End. (c) 2 Gns. (e) Jan. 15.

* * *

LINCOLN C.C. (a) 6 shops and 6 maisonettes, Hartsholme Estate. (b) City Architect, Stamp End. (c) 2 Gns. (e) Jan. 15.

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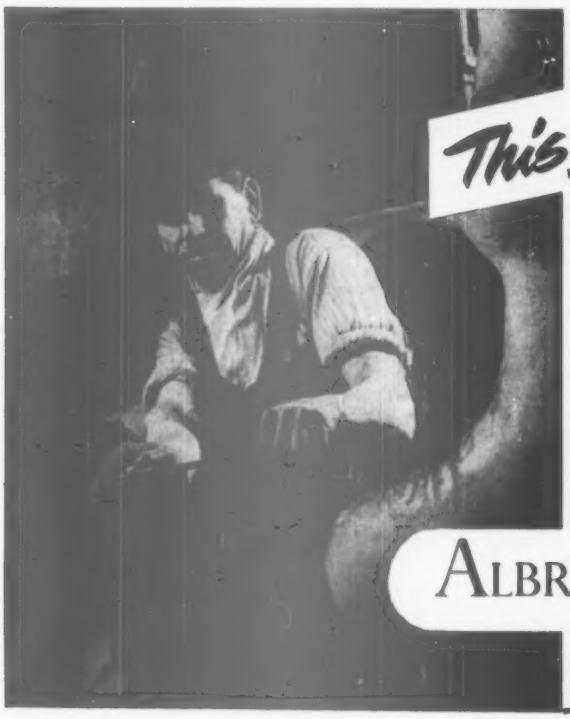

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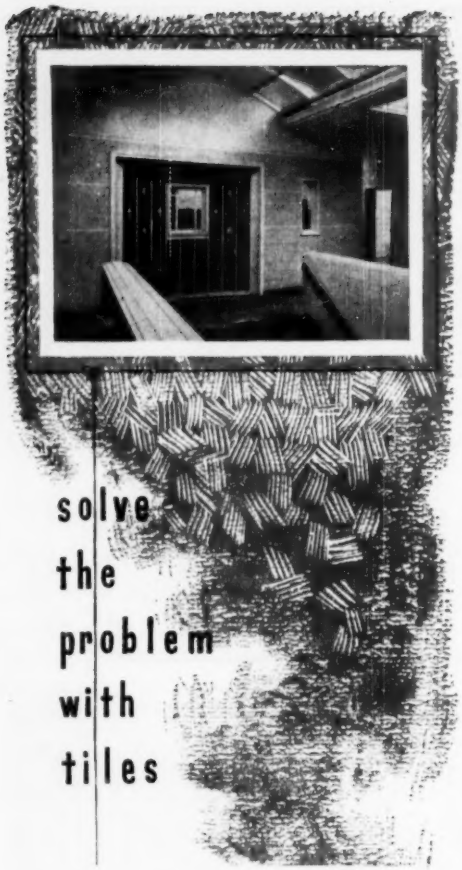

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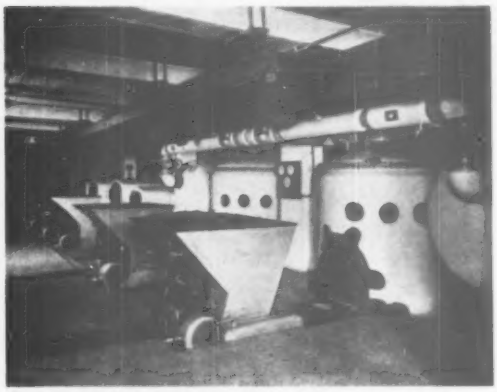

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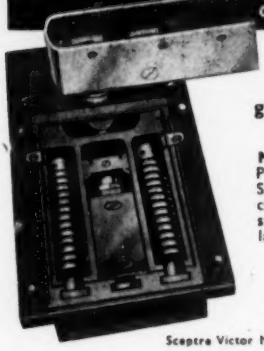
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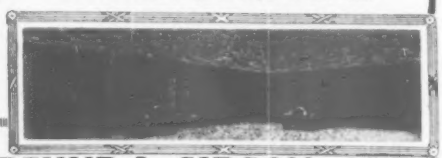
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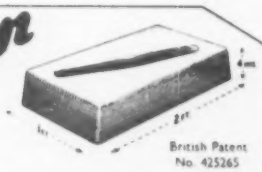
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APPLICATIONS are invited for positions of ARCHITECTURAL ASSISTANT (salaries up to £580 a year) in the Housing and Valuation Department. Commencing salaries will be determined according to qualifications and experience. Engagement will be subject to the Local Government Superannuation Acts, and successful candidates will be eligible for consideration for appointment to the permanent staff on the occurrence of vacancies.

Successful candidates will be required to assist in the design, layout and preparation of working drawings for housing schemes (cottages and multi-storey flats) and will be employed in the Housing Architect's Division.

Forms of application may be obtained from the Director of Housing, The County Hall, Westminster Bridge, S.E.1 (stamped addressed envelope required and quote reference A.A.1). Canvassing disqualifies. (816). [0101

AIR MINISTRY have vacancies for DESIGNER, DRAUGHTSMEN in the Designs Branch of the Works Department in the following fields: Architecture, Drainage and Water Supply, Land Survey. Vacancies are mainly in London but there are some in the provinces. If desired, consideration would be given to making appointments for London only. Salaries are on ranges up to £625 with starting pay in accordance with age and qualifications.—Applications, stating age, qualifications, previous appointments with dates, should be sent to Air Ministry (S.2.H.), Cornwall House, London, S.E.1, from which address further details may also be obtained. [5004

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APPLICATIONS are invited for the appointment of CHIEF ASSISTANT ARCHITECT within Grade VI (£595-£660).

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Conditions of appointment and form of application may be obtained from Mr. H. D. Peake, M.Sc. (Eng.), Borough Engineer and Surveyor, Town Hall, Chatham, to whom completed application forms should be returned not later than Friday, 12th January, 1951. [5089

URBAN DISTRICT COUNCIL OF FELTHAM.

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Forms of application may be obtained from the undersigned, to whom they must be returned, accompanied by copies of two recent testimonials, not later than 13th January, 1951.

Canvassing will disqualify, and applicants must disclose in writing whether to their knowledge they are related to any member of or the holder of any senior office under the Council.

M. W. COUPE, Clerk of the Council.
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Applications, stating qualifications, accompanied by two testimonials and the names of two referees, should be submitted to the County Land Agent, 7 Victoria Parade, Leicester, within 14 days of the appearance of this advertisement.

JOHN A. CHATTERTON,
Clerk of the Council.
County Offices, Grey Friars, Leicester. [5098

CRAWLEY DEVELOPMENT CORPORATION invites applications for the appointment of DRAUGHTSMAN within the salary Grade V, £400 x £25 - £525 p.a. Contributory superannuation.

Applicants must be capable Draughtsmen with good structural knowledge and experience in presentation technique. They must have had experience in an architectural office.

Form of application can be obtained from the Chief Architect, Broadfield, Crawley, Sussex, and should be returned to him not later than the 8th January, 1951.

C. A. C. TURNER, Chief Executive. [5099

GOVERNMENT OF NORTHERN IRELAND.

SUPERVISORY ARCHITECT (SCHOOLS).

APPLICATIONS are invited for an unestablished post of SUPERVISORY ARCHITECT (Schools). The appointment will, so far as can be foreseen, last for several years.

The successful candidate will be remunerated according to qualifications and experience within the salary range £1,100-£1,300 per annum.

Qualifications. Candidates must be Registered Architects and have passed the Final examination of the Royal Institute of British Architects. They must have had extensive experience in up-to-date School design and layout, and should be conversant with the use of non-traditional forms of construction. Administrative experience will be an advantage.

Preference will be given to candidates who served with H.M. Forces during war-time, providing the Ministry is satisfied that such candidates can or within a reasonable time will be able to discharge the duties efficiently.

Applications, giving date of birth, full particulars of qualifications and experience, with copies of two recent testimonials, should be sent to the Director of Establishments, Ministry of Finance, Stormont, Belfast, so as to reach him not later than 15th January, 1951. [5100

HEBBURN URBAN DISTRICT COUNCIL.

APPOINTMENT OF ASSISTANT ARCHITECT, GRADE VI.

APPLICATIONS are invited from suitably qualified persons for the permanent appointment of ASSISTANT ARCHITECT in the Architectural Section of the Engineer and Surveyor's Department.

The salary payable will be in accordance with Grade A.P.T. VI of the National Salary Scales, i.e., £595 to £660 p.a. The appointment will be subject to the National Scheme of Conditions of Service, and the provisions of the Local Government Superannuation Act, 1937.

The successful candidate will be required to pass a medical examination.

Preference will be given to registered architects who have had experience in the architectural design and construction of housing and general municipal work.

Applications, endorsed "Assistant Architect," together with copies of two recent testimonials, must be received by the undersigned not later than Tuesday, the 9th January, 1951.

T. MEADOWS WRIGHT, LL.M.,
Clerk and Solicitor.
Clerk's Office, Council Offices,
Argyle Street, Hebburn, Co. Durham. [5104

CITY OF BRADFORD.

CITY ARCHITECT'S DEPARTMENT.

APPLICATIONS are invited for the following permanent posts in the Office of the City Architect (W. C. Brown, Dip.Arch., A.R.I.B.A., A.M.T.P.I.).

The Department is responsible for the work of all Committees with the exception of Housing.

QUANTITY SURVEYOR (Grade IX, £750/900 per annum).

Applicants should be Corporate Members of the Royal Institution of Chartered Surveyors (Quantities Sub-Division) and be experienced in the preparation of Bills of Quantities, Final Accounts and Approximate Estimates.

ASSISTANT QUANTITY SURVEYOR (Grade II, £420/465, or Grade III, £450/495 per annum according to experience).

Applicants should have office experience and should have passed the Intermediate Examination of the Royal Institution of Chartered Surveyors (Quantities Sub-Division). As an alternative, Workers-up with good general professional experience would be considered.

2 ASSISTANT ARCHITECTS (Grade VI, £595/660 per annum).

Candidates should be Associates of the Royal Institute of British Architects with at least two years' office experience.

The appointments will be subject to the provisions of the Local Government Superannuation Act, 1937, and the successful applicants will be required to pass a medical examination.

No assistance can be given in the provision of housing accommodation.

Application Form may be obtained from the City Architect, Town Hall, Bradford, and the completed form must be returned to me not later than the 13th January, 1951.

W. H. LEATHEM, Town Clerk.
Town Hall, Bradford. [5106

CITY OF OXFORD.

CITY ARCHITECT AND PLANNING OFFICER'S DEPARTMENT.

ASSISTANT ARCHITECT.

APPLICATIONS are invited from fully qualified Architects for a post on the permanent staff of the City Architect and Planning Officer's Department.

The salary scale will be £520 - £15 (2) - £20 (1) - £570 per annum.

Applicants must be Registered Architects, capable of preparing sketch designs, full working drawings, specifications, etc., and competent to undertake educational and general architectural work.

The appointment will be subject to the National Conditions of Service, the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination.

Further details of the duties of the post and application forms which must be used in applying for the post, may be obtained from E. G. Chandler, A.R.I.B.A., A.M.T.P.I., City Architect and Planning Officer, Town Hall, Oxford, and these forms must be returned not later than Saturday, the 20th January, 1951.

HARRY PLOWMAN, Town Clerk.
The Town Hall, Oxford. [5105

GOVERNMENT OF NORTHERN IRELAND.

MINISTRY OF FINANCE.

CHIEF ARCHITECT'S BRANCH.

ARCHITECTURAL ASSISTANTS.

APPLICATIONS are invited for posts of ARCHITECTURAL ASSISTANT in the Ministry of Finance. Appointments will be non-pensionable, but successful candidates will be eligible for consideration for appointment to pensionable posts as vacancies arise. Rates of pay will be fixed in accordance with the experience and qualification of the successful candidates and will be within the range £400-£540.

Qualifications: Candidates must have passed the Intermediate Examination of The Royal Institute of British Architects and have had at least two years' experience in an Architect's Drawing Office.

Preference will be given to candidates who have served with H.M. Forces in War-time, provided the Ministry is satisfied that such candidates can, or within a reasonable time will be able to, discharge the duties efficiently.

Applications, giving date of birth, full details of training and qualifications, should be sent immediately to the Director of Establishments, Ministry of Finance, Stormont. [5109

RURAL DISTRICT COUNCIL OF BARNARD CASTLE.

APPOINTMENT OF HOUSING ARCHITECT.

APPLICATIONS are invited for the appointment of a HOUSING ARCHITECT at a salary of £750 per annum rising by three annual increments of £50 to a maximum salary of £900.

The person appointed will be responsible for the erection of all Council Houses and should be experienced in the preparation of Lay-outs and House Plans, Bills of Quantities for housing works, measurement of variations and settlement of accounts.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, to the Memorandum of Recommendations made by the Joint Negotiating Committee for Chief Officers of Local Authorities, and to three months' notice on either side. The successful applicant will be required to pass a medical examination.

Applications, giving age, qualifications and experience, together with copies of two recent testimonials, must reach the undersigned not later than the first post on Wednesday, the 10th January, 1951.

HARRY T. LEONARD, Clerk to the Council.
43 Galgate, Barnard Castle.
27th December, 1950. [5110

SALOP COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

APPOINTMENT OF CHIEF ASSISTANT ARCHITECT.

APPLICATIONS are invited for the appointment of CHIEF ASSISTANT ARCHITECT. The commencing salary will be not higher than the maximum of Grade A.P.T. IX (£900 per annum), but the grading is at present under review and a higher grade is likely to be fixed in the near future.

Applicants must be Members of the R.I.B.A. and have had wide experience in the design and construction of public buildings, particularly schools.

Living accommodation will, if it is desired, be available for the successful applicant.

The appointment will be subject for its termination to three months' notice in writing on either side; to the terms of the National Joint Council's Scheme of Conditions of Service, and to the provisions of the Local Government Superannuation Act, 1937.

The successful applicant will be required to pass a medical examination.

Application forms may be obtained from the County Architect, A. G. Chant, F.R.I.B.A., Column House, London Road, Shrewsbury, to whom they must be returned, accompanied by copies of not more than three recent testimonials, not later than Thursday, 18th January, 1951.

G. C. GODBER,
Clerk of the County Council.
Shrewsbury.
December, 1950. [5111

THE UNIVERSITY OF LIVERPOOL.

APPLICATIONS are invited for the post of SENIOR LECTURER in Architectural Construction in the School of Architecture, at a salary of £1,150/50/1,350 per annum.

Applications, accompanied if possible by drawings or photographs of work, two testimonials and the names of two referees, should be received not later than 29th January, 1951, by the undersigned, from whom further particulars of conditions of appointment may be obtained.

STANLEY DUMBELL, Registrar. [5108

CAPE TECHNICAL COLLEGE, CAPE TOWN.

LECTURING POST IN THE DEPARTMENT OF BUILDING.

APPLICATIONS are invited for the above post from suitably qualified persons of good education who have served an apprenticeship or have other approved training in the Building Industry, and have obtained qualifications of at least the standard of the National Diploma in Building.

Applicants should be able to teach all grades of the following subjects: Workshop Calculations, Carpentry and Joinery, and/or Sanitation and Building Construction. Ability to teach other building subjects will be an additional recommendation.

Salary scales within the range of £375 x 25 - £750 x 30 - 840, with barriers depending upon qualifications.

The commencing salary will depend on experience.

Cost of living allowances (at present £208 p.a. for married persons and £83 for unmarried persons) are paid, and in addition there are also Provident Fund and Insurance Benefits.

Successful candidates should commence duties on 1st July, 1951.

The appointment of an officer who is not bilingual will be subject to the condition that he qualifies in the second or both official languages as the case may be within three years of appointment.

Applications on the prescribed form (obtainable on request), accompanied by certified copies of testimonials, should be submitted not later than 31st January, 1951, to Messrs. J. A. Ewing & Co. (London) Ltd., Finsbury Court, Finsbury Pavement, London, E.C.2. [5107

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ARCHITECTURAL Assistants, qualified or Intermediate, required for varied work in private Architect's London office.—Box 7757, The Architect and Building News. [5112

JUNIOR Architectural Assistant required immediately for the Farm Buildings Advisory Service. The vacancy is suitable for a student. Salary £200 per annum.

Application in writing should be made within one week to the Secretary, The West of Scotland Agricultural College, 6 Blythswood Square, Glasgow, C.2. [5101

EDUCATIONAL

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APPLICATIONS are invited from men and women of approximately 25 years of age and over, for admission to a one year course of training as full time teachers of Building and allied subjects in Technical Colleges and similar institutions.

Applicants should have a University degree in Building or Allied Subjects, or qualifications in a profession associated with Building, or a Higher National Certificate in Building, or, for Craft teaching, a Full Technological Certificate of the City and Guilds of London Institute in a Building Craft. In certain crafts a Final City and Guilds Certificate (preferably a First-Class) may be accepted.

The courses will begin in September, 1951. Recognised students will pay no fees and they will be eligible for maintenance grants for the period of the course.

Further particulars and application forms may be obtained from:

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Bolton Training College,
Manchester Road,
Bolton, Lancs.

The Director,
Huddersfield Training College,
Queen Street South,
Huddersfield, Yorks. [5095

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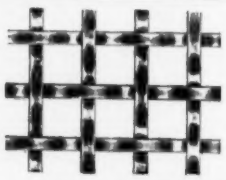

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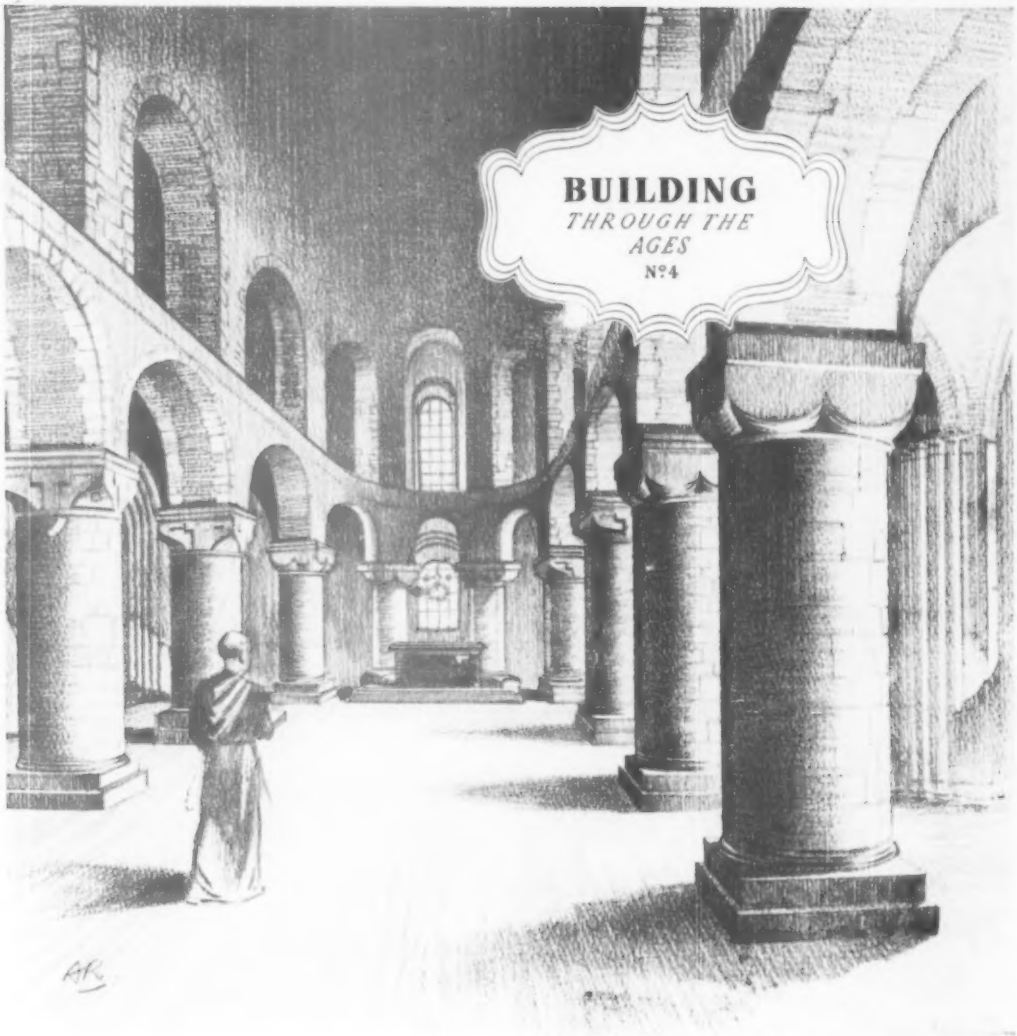

Interior of the Norman Chapel, Tower of London

SUCH examples of Norman building as remain to-day all suggest a grim and solid pattern of architecture. This is, perhaps, because the Norman era gave little to domestic construction. Its most typical work relied largely upon heavy masonry which was quite unsuitable for dwelling houses, except of the largest kind and even these were integral with some military strongpoint.

The Normans, in this country at least, were invaders with a sullen native population to keep subdued and so were more interested in erecting headquarters for their armed forces than mere domestic building. The only alternatives which attracted them were churches and in this direction they produced some outstanding examples.

Norman building practice derived from the Romanesque and Teutonic which account for its strength and solidity. It is characterised by the thick walls and massive pillars essential to support heavy roofs; the round arches; the narrow windows, flush outside and splayed within; and the lack of superfluous ornamentation. This simple, durable form of architecture is the reason why so much of the best Norman work survives to-day.

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